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BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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J. W. JONES, M. D., <i>President</i> , Tarboro.	J. H. TUCKER, M. D., Henderson.
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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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VOL. IV.

APRIL, 1889.

NO. I.

To the Superintendents of Health and Correspondents.

We respectfully request that the superintendents of health and correspondents be more explicit in regard to that part of their monthly report to this office relating to the prisoners in jail and inmates of the poor-house; as to the space allotted each inmate, in cubic feet; the water served each, whether well or cistern water, whether wholesome or not, and how much; the food served each, whether sufficient, and of what kind, how much meat and bread, or whether bad, ordinary, fair or good; the number giving evidence of successful vaccination, and the number which can read and write.

We would also request that the sanitary and mortuary reports be sent in more promptly. We suggested some time ago that the superintendents and correspondents place in some conspicuous place in their office a reminder to send in reports by the 5th of each month. If all would do this we would be able to issue the BULLETIN by the 20th of

each month, containing the reports for the month preceding. It is very essential to have the BULLETIN to issue as soon after the close of each month as practicable, and it is remarkable how a few tardy superintendents persist in detaining its early publication, though told of the necessity and desirability of sending in their reports on time.

Disinfection.

Disinfection plays an important rôle in the prophylaxis or prevention of disease. We know, for some of the infectious diseases at least, the media by which they are usually conveyed.

Cholera and typhoid fever, for instance, are contracted in the majority of instances through the ingestion of infected food or drink, especially the latter. Hence, when diseases are present, it is a safe plan to boil the water used for drinking purposes. Milk, also, should be treated in this way, as it is not only frequently diluted with water, which may be infected, but may itself be the carrier of disease-germs. Scar-

let fever, diphtheria and typhoid fever have been communicated by infected milk.

It is now believed that tubercular consumption is an infectious disease, and may be contracted by the inhalation of spores present in the expectoration.

For this reason the expectoration of consumptives should be received in vessels containing a solution of corrosive sublimate or chloride of lime.

Filth, in itself, is considered by some to be a cause of diphtheria. However this may be, filth of all kinds offers a breeding place for disease-germs, while by cleanliness and the proper use of antiseptics, we may render such material incapable of supporting germ-life.—*Extract from an article in "The Monthly Sanitary Record."*

The Contagion of Pneumonia.

At the close of a long discussion of the contagiousness of pneumonia, Netter draws the following conclusions (*Arch. Gen. de Med.*) : Acute pneumonia is a contagious transmissible affection. The contagion emanating from the sick persons owes its activity to specific pathogenic organisms, the pneumococci, which multiply in the pneumonic focus, and leave the body by different ways, but are specially abundant in the sputum.

Contagion is possible long after the recovery of the patient. One reason for this is that the germ continues to live in the pneumonic patient for a long time after the disease has disappeared, and may be found in an active state in the mouth. Another reason is the resistance which the vitality of the germs offers to dessication outside of the human body. This raises the question whether isolation of pneumonic patients should be practiced. The author does not think this necessary, but would forbid the parents using linen that had been in use about the patient, staying continually in the room, or passing the night there. In hospital practice the pneumonic patients should be put in the smaller rooms, and not in the main

ward. Especially should they be separated from cases of typhoid fever, measles, nephritis, diabetes, and acute affections of the respiratory tract. The sputum being the principal vehicle of contagion, should be disinfected. Linen and other articles should be disinfected in the same way as in the case of other contagious diseases. Disinfection of the oral cavity would certainly diminish very greatly the number of cases of pneumonia, by lessening the danger of relapse and the risk of infection to other individuals.—*American Journal of the Medical Sciences.*

The Tubercle Bacillus.

A French contemporary gives a vivid description of the vitality of the Bacillus of Tubercle. Of all micro-organisms it is one of the most refractory to the action of the most destructive agencies. It maintains its virulence after lying for forty days in putrid sputum, and for 186 days away from contact with air. It can live at temperatures between 86° and 104° F. The most unfavorable conditions, though affecting its activity, do not compromise its existence, for it resumes its virulence whenever its surroundings become suitable. To render it inactive it is necessary to have recourse to violent means, such as ebullition, steaming, or prolonged contact with antiseptic substances, such as ammonia, concentrated salicylic acid, absolute alcohol, or a strong solution of carbolic acid. Corrosive sublimate itself is said to be powerless to disinfect the sputum. The Bacillus acclimates itself amidst the most unfavorable surroundings. It complies with the exigencies of its condition, and even alters its shape, but without losing any of its virulence, of which it gives ample evidence whenever fortune favors it. Its polymorphism is not the least curious point in the life-history of this organism. Thus it is sometimes a short rod, sometimes a line—occasionally it splits and forms spores—but it always returns to the Bacillus in its complete form, with its virulence

intact, whenever circumstances become favorable.—*Med. Press*, Feb. 6, 1889.

Sanitary Care of Privies

BY G. S. FRANKLIN, A. M., M. D.

The recent astonishing progress in sanitary science has taught us more and more definitely the sources and causes of human mortality that are partially, if not wholly, within the reach of sanitation. It has long been known that one of the most fatal diseases which afflicts humanity and decimates our fellow-men, is typhoid fever, which has been tersely called, from its origin, night-soil fever. This description means that night-soil is commonly accepted by educated men as the source of typhoid fever, dysentery, diphtheria and some other affections of similar type.

Special, intelligent and careful investigations have demonstrated the connection between decomposing, foul-smelling, filthy human excrement and various filth diseases, of which typhoid fever is the type. The best measure of disposing of human excrement, under varying circumstances, so that the filth diseases might be less common, less fatal, or banished altogether, have been the subject of careful experiment, and the results obtained were widely published. The conclusions arrived at were as follows:

1. That the water-carriage system, by means of well constructed water-closets, impervious sewers, and arrangements for careful depuration and utilization of sewage at point of delivery, was the best method.

2. That an impervious receptacle, such as an earth-closet, or a tub, or a pail of small capacity, compelling its being emptied in a day or two, the contents being carted away for immediate use in enriching the garden, or the farm, was next best.

3. That privies or cess-pools, lined with impervious materials, so as to prevent leakage into the surrounding soil, of small capacity, so as to compel emptying and cleaning to prevent

overflow, combined with the use of certain deodorants and disinfectants to prevent filthiness and decomposition, was next best.

4. That the use of open-surface middens, or dunghills, or unlined, pervious and neglected privies, so as to allow leakage and contamination of the neighboring drinking-water, or water used in cooking, or the water used in washing milk cans, etc., is the most dangerous method of all, and is justly chargeable with the vast majority of all cases of typhoid fever and its congeners.

This classification shows where the privies in common use in most of our towns properly belong, namely, to the fourth and worst class, where contamination of the soil, and consequently of drinking-water obtained from wells, is the rule, hardly an exception. I venture to say there is not a physician in North Carolina who is not chargeable with gross individual negligence in permitting this state of things to exist on his own premises, and with ignoring a great public duty when he does not call the attention of neighbors and patrons to the great danger liable to be thus incurred even by the present generation, but more especially by our posterity. But the time will surely come, if present methods continue, when our sanitary sins will find us out; when typhoid fever, and dysentery, and diphtheria will become more and more common, and more deadly, until we will be compelled to repent of our sins and reform our vicious methods. Would it not be far more prudent to begin such reform now; to agitate for better methods of taking care of human excrement; to beg our city or town authorities to pass an ordinance that all newly erected privies shall be cemented, and that some provision for removal and utilization should be made? On the score of expense and trouble, the cemented privy, proper disinfection, and the annual or semi-annual removal of its contents, would be the least burdensome, but not nearly so efficient as the methods numbered two and three, to the realization of which considerable time and money

must be brought. Efficient water-carriage and sewerage would cost a very large sum, and human lives may be considered much cheaper, only the victims and their friends wishing we had such a system, whatever the expense.

In the meantime, *under our present system*, and in view of the probable appearance of cholera among us in the near future, what can be done in the way of sanitary precaution by corporate authority or individuals?

If I should be asked to advise the best method of disinfecting a foul privy, I would direct the use of a pound of crude permanganate of potash dissolved in a gallon of hot rain water, to be sprinkled from a watering-pot over the sides of the privy and on the decomposing mass; then, after this is done, I would direct about five or ten pounds of pulverized sulphate of iron to be scattered over the mass. These disinfectants are not dangerous to handle, do not poison the soil, and do not lessen, but rather add to, the fertilizing qualities of the excreta.

If these disinfectants were too expensive for the means of the owners, and corporate aid was not at hand, I would order a cart load of dried clay to be used so as to cover the putrescent mass thoroughly, with a reserve of clay to be used in smaller quantities every few days. But, however carefully and thoroughly these or any other disinfectants may be used, it should never be forgotten that we can only expect a partial and incomplete correction of the noxious properties of such privies, and that so long as they are unlined and uncemented the poisoning of our drinking water is always possible, and yearly becomes more and more probable.

A Wise Move—Let Other Towns Follow!

Dr. James McKee, of Raleigh, has inaugurated an excellent system of mortuary reports, to be issued monthly, and having the official sanction of B. P. Williamson, Esq., chairman of the Board of County Commissioners, and Hon. A. A. Thompson, mayor of the city.

The report for March shows twenty-one deaths in the city. Seven burial permits were issued for persons who had died at the insane asylum and elsewhere. It is notable among the causes of disease, that five of negroes were due to consumption, while not one white person died with it. It has not been a quarter of a century since consumption was very nearly an unknown disease among the negroes. There is a very different state of things now—that disease carries off a great many of that race.

Glanders in Wilmington.

Mr. Isaac Rhodes bought a drove of horses from a drover from Pittsburg on the 5th of February. On the 10th of February Messrs. Boney & Harper bought a mule from this drove. The animal was a fine one, and apparently healthy, but was confined to the stable shortly after purchase with lameness, making in all three weeks. Discharge from the nostrils was noticed after a lapse of about forty days from his time of arrival. Having no knowledge of glanders, the purchaser, by accidental inquiry, discovered the nature of the disease. On the 8th of April, he directed a man to take this mule out of town and shoot him. Tuesday and Wednesday elapsed and it was discovered on the 11th that the man who had been ordered to kill him gave him away to a colored man. When this was ascertained steps were taken to discover the whereabouts of the animal, have him killed and buried. For this purpose the Chief of Police made a detail of police. On the 6th of April a second mule was taken with the disease, and on the 7th of April a pony, all having caught the disease from the first animal. Two more animals, a horse and a mule, from the same stables, are under observation.

Mr. D. W. Thompson, of Abbotsville, bought two mules from the same drove in Wilmington, and intelligence was received to-day (the 13th) that both animals died with glanders.

This is the first visitation of glanders, so far as we can learn, and immediate steps will be

taken to isolate all animals suspected, and destroy all the probable foci of propagation.

THE SYMPTOMS OF GLANDERS, as given by Prof. Law, in "*Pepper's System of Medicine*," are, in the abstract, as follows:

The incubation period is from three to five days in inoculated cases, when by infection it has extended over years. At the outset there is fever, languor, loss of appetite, and a serous nasal discharge, often from one side only. By the 6th day this becomes yellowish, the margin of the nostril is often swollen, and upon the mucous membrane may be detected elevations of various sizes, of a general yellowish tinge, dotted with minute red points, and surrounded by a bright-red or purple or slightly elevated areola (*i. e.*, a circle of inflammation). At the same time the glands under the jaws on the side corresponding to the discharging nostril, become the seat of a hard nodular, painless enlargement, feeling like a mass of pease; they do not often ulcerate. Extensive hot, painful engorgements often appear on the parts of the body; if on the limbs or joints, cause lameness. Soon the swellings on the mucous membrane of the nose change their character to ulcers, which tend to eat deeply. These ulcers have reddish, gray or yellowish red borders, bleed readily, and may be black from haemorrhage, or greenish, or of some other shade, from decomposition. The discharge is always sticky, but may vary in color from white to yellowish, greenish brownish or red. By the 6th or 15th day the height is reached.

The sides of the nose are glued together by the drying discharge, and this, with the swelling renders breathing difficult. Death usually ensues from suffocation.

The chronic form of glanders may set in insidiously, but there is usually constitutional disturbance, the frequent premonitory symptoms being intermittent or continued lameness, swelling of the limbs, cough, bleeding from the nose. Although the general health may appear good, dullness of the eye, dryness of the coat, lack of endurance, and debility soon show

themselves. The tendency of the nostrils is to glue together, and mucous is expelled in masses by snorting. Ulcers can be seen low down in the nasal passages, especially over mucous membrane of the dividing wall of the nose. A case may remain indolent for years, spreading infection.

TREATMENT.—Prof. Law says: "Considering the great danger of multiplying and preserving the germs of the disease, so fatal alike to man and beast, the treatment is *never* commendable.

PREVENTION.—"The glandered horses and all animals attacked with the acute or obstinate disease should be destroyed and their bodies be burned or deeply buried.

" Every State should legally interdict the use of a glandered horse or his exposure in any public or other place where infection is likely to reach other animals by contact through fodder, litter, stable utensils, or any other object employed about animals. No less imperative should be the perfect disinfection of all stables, harness and other objects with which glandered animals have come in contact."

The doctrine of contagion is the only safe one, and it is best to sacrifice a few animals at the proper time than to run the risk by vacillating and temporizing experiments. Detention for inspection in isolated places, after the disease has been diagnosticated by capable persons, is very objectionable.

A coral of detention has been established at Mt. Tirza, four miles from the city, where all horses will be sent that are under suspicion of glanders, but have not shown decided symptoms. As soon as symptoms of the disease appear the animals will be shot and their bodies burned or buried.

Section 2488, of the laws of North Carolina, says:

" Any person who shall sell, or offer for sale, or who shall use, or expose, or cause or procure to be sold or offered for sale, or to be used or exposed, any horse or other animal having the disease known as glanders or farcy, or any

other contagious or infectious disease known by such person to be dangerous to life, or which shall be diseased past recovery, shall be guilty of a misdemeanor;" and,

Section 2489 says:

"Every animal having the glanders or farcy shall at once be deprived of life by the owner or person having charge thereof upon discovery or knowledge of its condition, and any such owner or person omitting or refusing to comply with this section shall be guilty of a misdemeanor."

By request of this Board to the Chief of the Bureau of Animal Statistics, Dr. W. H. Wray, United States Veterinary Inspector, arrived in this city Sunday night, the 14th April. After viewing the diseased horses, and making a careful diagnosis, he pronounced the disease to be glanders, and they were immediately killed. Dr. Wray also made a careful examination of all horses in the livery stables and others, and pronounced them free from any symptoms of this disease, and left Wilmington the night of the 16th.

Review of Diseases Reported by Counties for the Month of March, 1889.

Bronchitis was reported from Johnston, Vance and Yancey counties.

Brain diseases were reported from Cumberland, Guilford, Mecklenburg and New Hanover counties.

Consumption was reported from Beaufort, Craven, Cumberland, Durham, Guilford, Mecklenburg and New Hanover counties.

Chicken cholera was reported from Chatham, Cherokee, Cumberland, Pender and Richmond counties.

*Diphtheria was reported from Alleghany, Craven, Orange and Richmond counties.

*Distemper was reported from Alamance and Franklin counties.

*Erysipelas was reported from Yancey county.

Hog cholera was reported from Cherokee, Columbus, Pender, Richmond and Rowan counties.

Heart diseases were reported from Cumberland, Craven, Guilford and New Hanover counties.

Influenza was reported from Alamance and Duplin counties.

*Measles were reported from Cabarrus, Caldwell, Caswell, Cleveland, Cumberland, Iredell, Johnston, McDowell, Pender, Richmond, Robeson, Rowan, Rutherford, Stanly and Wayne counties.

Mumps were reported from Caldwell, Camden, Carteret, Chatham, Cumberland, Davidson, Franklin, Nash, Orange, Wayne and Wilson counties.

Malarial fevers were reported from Craven, Nash, New Hanover, Northampton and Pender counties.

Neurotic diseases were reported from Cumberland and New Hanover counties.

Pneumonia was reported from Alexander, Alleghany, Caswell, Cleveland, Craven, Cumberland, Duplin, Franklin, Gaston, Greene, Iredell, Johnston, McDowell, Mecklenburg, New Hanover, Rowan, Swain, Transylvania, Vance, Warren, Wilson and Yancey counties.

*Typhoid fever was reported from Cabarrus, Johnston, Nash, Pender and Yancey counties.

*Whooping-cough was reported from Macon, Mecklenburg, Richmond, Robeson, Swain and Wayne counties.

*NOTE.—All diseases marked thus * are considered as dangerous to the public health.

Review of Deaths from Thirteen Towns in the State, Representing a Population of 60,900 whites; 51,900 colored; total, 112,800.—Total Temporary Annual Death Rate 14.4 per 1,000.

There were 3 deaths from malarial fevers; 1 from diphtheria; 2 from whooping-cough; 11 from pneumonia; 23 from consumption; 5 from brain diseases; 5 from heart diseases; 4 from

neurotic diseases; 63 from all other diseases; 3 from accident and violence; 1 from suicide; and 5 were still born.

No reports were received from Oxford, Monroe, Winston or Salem. Cannot the reporters in these towns be more prompt in their returns? It is very essential in order to have correct mortuary statistics that these reports be sent in regularly, their importance and value resting upon the uninterrupted returns sent promptly; the reporters should themselves see the desirability of such a proceeding. We would respectfully request that they and all others read the article in the BULLETIN entitled "To the Superintendents of Health and Correspondents," and then carry out the contained suggestions.

Summary of Reports Received from Superintendents of Health and Official Health Correspondents for the Month of March, 1889.

Alamance.--Dr. George W. Long, Graham. Court-house is now being improved. The public buildings are in fair sanitary condition. There is not a great deal of sickness in the county now, but have had considerable influenza with resultant complications. Distemper has prevailed among horses.

Alexander.--Dr. H. McD. Little, Taylorsville. The general sanitary condition of the county is very good. No sickness of any kind reported, except a case or two of pneumonia. The general sanitary condition of the public buildings is good. There are two new rooms to be added to the poor-house, thus enlarging its capacity.

Alleghany.--Dr. George Daughton, Sparta. The sanitary condition of the county is pretty fair, but pneumonia and diphtheria have prevailed in different sections to a considerable extent. There has been no epidemic of any kind among domestic animals. The jail is in moderately good sanitary condition; but one case of mumps among the prisoners; they are supplied with well water, and the food fur-

nished them is sufficient; but none of them give evidence of successful vaccination. The sanitary condition of the poor-house is good; the water furnished is spring water, and its inmates are supplied with sufficient food, but do not give evidence of successful vaccination. No house of correction in the county.

Ashe.--Dr. J. W. Colvard, Jefferson. No report received for this month.

Anson.--Has no Board of Health.

Beaufort.--Dr. Wm. A. Blount, Washington. The sanitary condition of the county continues good. There has been no epidemic of any kind among domestic animals. The water served the inmates of the jail and poor-house is good. Of the 10 prisoners confined in the jail, 3 show signs of successful vaccination; and of the 12 inmates of the poor-house, only 4 give evidence of successful vaccination.

Bertie.--Dr. H. V. Dunston, Windsor. An epidemic of erysipelas in mild form has prevailed to some extent in and around Windsor; tonsillitis has also prevailed in several portions of the county. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the county is fair.

Bladen.--No Board of Health organized.

Brunswick.--Dr. D. B. McNeill, Supply. No report received for March.

Buncombe.--Dr. H. B. Weaver, Asheville. The county is in most excellent sanitary condition, but have had one case of scarlet fever, which has been isolated; do not fear that it will spread. Have also had several cases of measles. There has been an epidemic of distemper among horses in the city. The general sanitary condition of the public buildings is good in all respects. The prisoners confined in jail are furnished excellent water and good food, and 17 of the 25 give evidence of successful vaccination; while the 20 inmates of the poor-house are served with good food and water and 15 of them give evidence of successful vaccination.

Burke.—No Board of Health organized.

Cabarrus.—Dr. Robert S. Young, Concord. The general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good. The water and food served the inmates of the jail and poor-house is good, and of the 12 inmates of the former only 2 show signs of successful vaccination; while of the 24 inmates of the latter 12 give evidence of successful vaccination.

Caldwell.—Dr. R. L. Beall, Lenoir. Measles and mild catarrhal affections have prevailed to some extent, otherwise the health of the county is good. A few cases of mumps are reported. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good, but no effort at improvement. The food and water served the inmates of the jail and poor-house is good, but only one in each show signs of good vaccination.

Camden.—Dr. Ed. B. Ferrebee, Bellcross. The health of our county not so good for past month as the two preceding months, and yet there is no sickness of great importance. Mumps have appeared in several localities. The sanitary condition of the public buildings is good.

Carteret.—Dr. M. F. Arendell, Morehead City. The sanitary condition of the county is good. No epidemics have prevailed save a few cases of mumps. There has been no epidemic of any kind among domestic animals. The condition of the jail is clean and healthy, though old and somewhat dilapidated; ample water and good food is served its inmates, but none give evidence of successful vaccination.

Castwell.—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county is good, but measles and pneumonia have prevailed in all portions. The general sanitary condition of the jail and poor-house is very good, and the food and water served its inmates is good.

Catawba.—Dr. J. M. McCorkle, Newton. No report received for March.

Chatham.—Dr. L. A. Hanks, Pittsboro. The sanitary condition of the county is good. The general health of the county is good, with the exception of an epidemic of mumps. There has been an epidemic of chicken cholera among domestic animals. The sanitary condition of the public buildings is very good. The inmates of the almshouse and the prisoners confined in the jail are well fed and clothed; cleanliness is enforced and every effort is made to prevent the origin of disease. The water served the prisoners confined in the jail is good lime-stone, while the inmates of the almshouse are served with good free-stone water. Of the 3 prisoners in the former only 1 gives evidence of successful vaccination, while 10 of the 22 inmates of the latter show signs of successful vaccination.

Cherokee.—Dr. J. F. Abernathy, Murphy. This county was visited during the month of March by an epidemic of severe colds, which often ripened into pneumonia, causing several deaths. No contagious diseases of a dangerous nature to my knowledge. Chicken and hog cholera still prevail here, and it seems with more violence than ever. The poor-house is now kept in a neat new building located on a dry elevation one mile from town, which I think is a very salubrious situation. The new jail is in every way a very healthy building.

Chowan.—Dr. R. W. Winborn, Barnitz. Board of Health organized in this county last month, and we hope to hear from Dr. Winborn regularly hereafter.

Clay.—No Board of Health organized.

Cleveland.—Dr. J. C. Gidney, Shelby. The general sanitary condition of the county is very good, but measles have prevailed throughout the past month, but not of a malignant type. There were a few cases of pneumonia and one death therefrom. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good. The food

and water served the inmates of the jail and of the almshouse is good.

Columbus.—Dr. Isaac Jackson, Whiteville. The general sanitary condition of the county is very good; we have had very little sickness of any kind except a few cases of malarial fever. There has been an epidemic of hog cholera. The sanitary condition of the public buildings is good. The water and food served the inmates of the jail and poor-house is plenty.

Cumberland.—Dr. James A. Hodges, Fayetteville. Measles, mumps, and scabies are reported for this month from the surrounding country. There is little serious sickness. There has been an epidemic of chicken cholera. The public buildings have been put in thorough repair, and are in first-class sanitary condition. Of the 6 prisoners confined in the jail 4 give evidence of successful vaccination, while of the 16 inmates of the poor-house 12 show signs of successful vaccination.

Craven.—No Board of Health organized.

Currituck.—Dr. F. W. Ritter, Moyock. No report received.

Dare.—No Board of Health organized.

Davidson.—Dr. R. L. Payne, Jr., Lexington. The general sanitary condition of the county is good. This is always so at this season, but later on we may expect malarial diseases, because of the very faulty drainage of our swamp lands. Mumps have prevailed in all portions. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good. The food and water served the 9 prisoners confined in the jail is good; of this number none give evidence of successful vaccination; while the water served the 22 inmates of the poor-house is good, and the food is fair, and of this number there are none showing signs of successful vaccination.

Davie.—No Board of Health organized.

Duplin.—Dr. James W. Blount, Kenansville. The general sanitary condition of the

county is very good, but we have had more pneumonia and influenza than at any time in several years; there have also been three cases of typhoid fever reported. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is not good, but as we now have a superintendent of health I hope to see it improved during the present year.

Durham.—Dr. N. M. Johnston, Durham. The health of the county for the past month has been good, no epidemic having prevailed in any portion. The sanitary condition of the public buildings is good. The prisoners of the jail and the inmates of the house of correction and poor-house are served with soft water and they are served with wholesome food.

Edgecombe.—Dr. Julian M. Baker, Tarboro. There are three prisoners confined in jail; they are served with good food and water, and of this number only one gives evidence of successful vaccination; the thirty-five inmates of the poor-house are also furnished with good food and water, and of this number 1 only gives evidence of successful vaccination.

Forsyth—Dr. D. N. Dalton, Jr., Winston. The sanitary condition of the county is good. There has been no epidemic among the domestic animals. The general sanitary condition of the public building is excellent. The 18 prisoners confined in jail are furnished with good and sufficient food and water, one-half of them giving evidence of successful vaccination; the 16 inmates of the poor house receive ample food and water, and of this number only 4 give evidence of successful vaccination.

Franklin.—Dr. E. S. Foster, Louisburg. The sanitary condition of the county so far as I can learn is very good, but pneumonia in a mild form, and mumps have prevailed in town and other portions. There has been an epidemic of distemper among dogs and horses. The general sanitary condition of the public buildings, taking the health of the inmates as a criterion, is splendid. The jail may, how-

ever, be made more comfortable, and the matter is in the hands of the county commissioners. The food and water served the inmates of the jail and poor-house is good.

Gaston.—Dr. E. B. Holland, Dallas. The sanitary condition of the county is excellent, but catarrhal fever and pneumonia have prevailed. The sanitary condition of all of the public buildings in the county is good. The jail is being enlarged and improved. The food and water served the inmates of the jail and poor-house is good, but none of the former give evidence of successful vaccination, while only 4 of the 18 of the inmates of the latter show signs of successful vaccination.

Gates.—No Board of Health organized.

Graham.—No Board of Health organized.

Granville.—Dr. J. M. Hays, Oxford. There has been no epidemic disease prevalent in the county during the past month. We have had about our usual number of cases of pneumonia. Bronchitis has abounded and malaria in a mild form is beginning to make its appearance. The sanitary condition of the public buildings is good. The county commissioners have adopted the plan of refusing applications for aid from paupers outside the poor-house except in exceptional cases, and this necessitates additional accommodation at this institution. Arrangements are being made to that end now. The idea is that needy persons, rather than go to the poor-house, will make extraordinary efforts to support themselves; and that such as do go there will be properly cared for and discharged as soon as practical. We are working to make Oxford the cleanest and healthiest town in the State.

Greene.—Dr. W. C. Galloway, Snow Hill. The county is in a fair state of health, but have some pneumonia and bronchial colds. The poor-house is in first-rate sanitary condition, and the jail will do very well; the food and water served the prisoners and inmates of same is sufficient in quantity and quality.

Guilford.—Dr. R. W. Tate, Greensboro. The poor-house is in excellent sanitary condi-

tion, while that of the jail is not so good. Well water is served the 12 prisoners confined in jail, and they are supplied with good food, and of this number 5 give evidence of successful vaccination; the inmates of the almshouse are also supplied with well water and good food, and of their number, 26, 15 show signs of successful vaccination.

Halifax.—No Board of Health organized.

Harnett.—No Board of Health organized.

Haywood.—No report received this month.

Henderson.—Dr. L. L. Johnson, Angeline. We have had a general epidemic of pneumonia in all parts of the county; 30 cases reported, and 8 deaths. There has been no epidemic of any form among domestic animals. The sanitary condition of the jail and poor-house is as good as last reported. We hope to have a new building by the termination of the next twelve months.

Hertford.—No Board of Health organized.

Hyde.—Dr. Edward Clark, Middleton. No report received for this month.

Iredell.—Dr. M. H. Hill, Statesville. The sanitary condition of the county is pretty fair, judging from the amount of sickness. Measles prevail in the southern and northern portions of the county. Pneumonia has been prevalent in a portion of the county. There has been no epidemic of any character among domestic animals. The sanitary condition of the public buildings as good as can well be, considering faulty construction. Nothing being done "*pro bono publico*." Good water and substantial food is served the prisoners confined in the jail and inmates of poor-house.

Jackson.—No Board of Health organized.

Johnston.—Dr. L. L. Sasser, Smithfield. The general sanitary condition of the county is very good, but bronchitis and pneumonia have prevailed. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is very good; no efforts are being made at im-

provement. The food and water served the prisoners confined in the jail and the inmates of the poor-house are sufficient.

Jones.—Dr. C. B. Woodley, Trenton. The sanitary condition of the public buildings is fair.

Lenoir.—There was a Board of Health organized in this county, but we cannot obtain any report.

Lincoln.—Dr. W. L. Crouse, Lincolnton. There is but little change in the health of the county. Generally good. Diseases of the respiratory organs continue in the forms of bronchitis and pneumonia to some extent. Measles also continue in the southwestern portion of the county. Our poor-house is full of inmates; it is well kept.

Macon.—Dr. J. M. Lyle, Franklin. The general sanitary condition of our county is good, but an epidemic of whooping-cough has prevailed in central portion of our county. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good.

McDowell.—Dr. J. H. Gilkey, Marion. The general sanitary condition of the county has been very good, with the exception of measles and pneumonia, which have prevailed pretty extensively in some portions of the county, the former proving fatal in several instances. There has been no epidemic among domestic animals. General sanitary condition of the public buildings very good. The food and water served inmates of the jail and poor-house is good, but only 2 of the former and 1 of the latter give evidence of successful vaccination.

Madison.—Dr. J. K. Hardwicke, Marshall. The sanitary condition of the county is good, except in one locality, where bad sewerage and impure well-water caused six deaths by diphtheria. The general sanitary condition of the public buildings is very good. The 2 prisoners confined in jail are supplied with good food and water, but neither give evidence of successful

vaccination; the 8 inmates of the poor-house are furnished with good food and water, but none of them give evidence of successful vaccination.

Martin.—Dr. W. H. Harrell, Williamston. No report received this month.

Mecklenburg.—No Board of Health organized.

Mitchell.—No Board of Health organized. *Montgomery*.—Dr. W. A. Simmons, Troy. The general sanitary condition of the county is good; no particular disease has prevailed anywhere. There has been no epidemic of any kind among domestic animals. No efforts at improvement of the public buildings, and not much needed. The food and water furnished the inmates of the jail and poor-house is good.

Moore.—No Board of Health organized.

Nash.—Dr. George W. Lewis, Spring Hope. The general sanitary condition of the county seems to be fairly good at present, but typhoid, typho-malarial and intermittent fever and mumps have prevailed in different portions. There has been no epidemic of cholera among domestic animals. The jail and poor-house are in good sanitary condition; no efforts at improvement just now.

New Hanover.—Dr. F. W. Potter, Wilmington. I have been informed that the sanitary condition of the county has been good, but have some catarrhal troubles on the sea-coast, also a few cases of pneumonia. There has been no epidemic of any kind among domestic animals during the past month. The jail is in good cleanly condition; one case of intermittent fever treated. The house of correction is in good condition. The poor-house is very well kept; two cases of fever treated, and one death among insane. All of the inmates of the above institutions are furnished with water *ad libitum*, those confined in jail with water from the water works, and those in the house of correction and poor-house with water from cistern. Of the 22 prisoners in jail only 12 give evidence of successful vaccination, and of

the 6 confined in the house of correction 4 show signs of successful vaccination, while of the 24 inmates of the poor-house 14 give evidence of successful vaccination.

Northampton.—Dr. H. W. Lewis, Jackson. The sanitary condition of the county is good, no epidemic having prevailed in this or other portions, neither has there been an epidemic of disease among domestic animals. The sanitary condition of the poor-house is much improved, the water served its inmates is good, the food fair, and 15 of the 38 give evidence of successful vaccination. The jail is burned.

Onslow.—Dr. J. L. Nicholson, Richlands. A very extensive epidemic of measles, influenza and catarah has prevailed in every section of the county.

Orange.—Dr. D. C. Parris, Hillsboro. The general sanitary condition of the county is fairly good. Accumulation of saw-dust in small sluggish flowing stream in northern part of county has been the cause of some malarial troubles in that section. It is decided that ditching of said stream will remedy the evil. Aside from this, I know of no other nuisance that threatens public health. Bronchial, catarhal, malarial and throat affections have prevailed, but to no alarming extent. Mumps have been moderately severe in western part of the county. There has been no epidemic of any kind among domestic animals. The sanitary condition of the poor-house is good; its 33 inmates are supplied with pure water, and the food served them is fair, but only 11 of them give evidence of successful vaccination. The jail is in moderately good sanitary condition; efforts are being made to improve same, however; the 2 prisoners are furnished with pure water and fair food, and only one gives signs of successful vaccination. The guard-house and mayor's office is nearing completion; when finished will be a neat and nice building.

Pamlico—No Board of Health organized,

Pasquotank.—No Board of Health organized.

Pender.—Dr. W. T. Ennett, Burgaw. The general sanitary condition of the county is not good; on account of wet grounds, caused by excessive rain, malarial fever has prevailed in low swampy portions. There has been an epidemic of cholera among hogs and chickens. The sanitary condition of the public buildings is good.

Person.—Dr. O. G. Nichols, Roxboro. There has been a great deal of chicken cholera, distemper, but slight, among horses. The general sanitary condition of the county, so far as I can learn, is pretty good. We have no diseases prevailing but mumps now. The poor-house is in good sanitary condition. We are going to repair the jail at once.

Pergimans.—No Board of Health organized.

Pitt.—Dr. J. T. Sledge, Greenville. No report received from this county since February, 1889.

Polk.—No Board of Health organized.

Randolph.—No Board of Health organized.

Richmond.—Dr. W. W. Covington, Rockingham. The sanitary condition of the county is as good as has been known for years, there being no sickness of any consequence. There has been an epidemic of hog and chicken cholera in many sections of the county. The sanitary condition of public buildings is good, except the cells at poor-house for confinement of lunatics, which I have often mentioned as being entirely too small and poorly ventilated. The food and water served the prisoners (5) confined in jail is good, but only 1 of that number gives evidence of successful vaccination; and the 12 inmates of the poor-house are also supplied with good food and water, and 2 of them show signs of successful vaccination.

Robeson.—Dr. R. F. Lewis, Lumberton. The county is in fine sanitary condition, but measles and whooping-cough have prevailed. There has been no epidemic among domestic animals. The public buildings are in fair sani-

tary condition, improvements continually being made when necessary. The inmates of the jail and poor-house are supplied with pure water and sufficient food.

Rockingham.—Dr. T. E. Balsley, Reidsville. Will send reports from April on.

Rowan.—Dr. J. J. Summerell, Salisbury. Our county seems to be in pretty good sanitary condition, if we are to judge by the small amount of sickness prevalent. There has been no special effort made to make the sanitary condition better. The city of Salisbury has had singular exemption from the usual spring complaints. There have been only a few deaths this winter and spring, but the fatal cases have been generally old and worn out with phthisis or dropsy, or very young children with catarrhal troubles, as after measles. There has been an epidemic of hog cholera among the hogs at several of the distilleries of this vicinity. Our public buildings are in good sanitary condition. Though there has been rather over the usual number in jail there has been as little bad odor or impurity in the air respired as I ever witnessed in a prison where there were so many confined. The jail is the only building in our town that is distinguished by having a system of sewerage, imperfect indeed, but still answers the purpose of a sewer, as far as the jail is concerned. The prisoners confined in jail and the inmates of the poor-house are supplied with good and plentiful water, and are served with plain, good and sufficient food. No data given as to vaccination.

Rutherford.—Dr. E. B. Harris, Rutherfordton. The sanitary condition of the county is extremely good. Hog cholera has ceased, and measles have about run their course. The public buildings are in splendid sanitary condition for the spring, and the inmates are all in very good health; had measles at poor-house, but all recovered and are doing well. The prisoners in the jail are supplied with good food and water, and only 2 out of the 8 give evidence of successful vaccination. The inmates of the poor-house are also furnished with

good food and water, and out of the 36 inmates of the latter, only 8 show signs of successful vaccination.

Sampson.—Dr. John A. Stevens, Clinton. The health of the county is tolerably good—a few cases of intermittent and remittent fevers, some cases of measles, whooping-cough and mumps. There has been an epidemic of hog cholera. The sanitary condition of the poor-house is very good, while that of the jail is bad in every way.

Stanly.—Dr. R. Anderson, Albemarle. The general sanitary condition of the county is good; there is no sickness of any consequence, though a mild type of measles has prevailed in part of the county. There has been no epidemic among domestic animals. The jail is old and uncomfortable, but reasonably clean; the prisoners are cared for well enough, being served with good water and wholesome food, and of the 3 inmates none give evidence of successful vaccination. The poor-house is comparatively new and in good condition. The paupers are well cared for, receiving good water and wholesome food, and of the 12 inmates none give evidence of successful vaccination.

Stokes.—No Board of Health organized.

Surry.—No Board of Health organized.

Swain.—Dr. R. L. Davis, Bryson City. The sanitary condition of the county is better than it has been for some time. No sickness except a few cases of pneumonia during the month and a few cases of bad colds among the children. There has been no epidemic of cholera among domestic animals. The general sanitary condition of the public buildings is as good as can be under the present circumstances. Steps are now being taken to bring pure spring water from our mountain sides into our city, which will be done shortly; then we will have as healthy a little city as can be found anywhere in the mountains.

Transylvania.—Dr. D. H. Farmer, Brevard. The sanitary condition of the county is

much better than last month; we have had a few cases of pneumonia, but no deaths. There has been no epidemic among domestic animals. The jail and court-house are not in as good condition as they should be; the plastering in the court-house is damaged from leaks in the roof, and the jail is still in bad condition from escaped prisoners.

Tyrrell.—Dr. Ab. Alexander, Columbia. There are three inmates in the poor-house; none in jail. There is no house of correction. We have only had three deaths since the first of January. The public buildings are in good order. At this time there is no sickness to report. The last gale did great damage to the fishing interests in the county, not less than fifty thousand dollars having been destroyed by it.

Union—Dr. W. C. Ramsey, Monroe. Measles and mumps have been quite general in this county; a few cases of typhoid fever and pneumonia have been reported, with some 3 or 4 deaths from measles. There has been no epidemic of any kind among domestic animals. The sanitary condition of the poor-house is good; that of the jail inferior. No improvement.

Vance.—The general health of the county is not as good as last month. Bronchitis, rheumatism, etc., have been reported, and pneumonia has prevailed in all portions. There has been no epidemic among domestic animals. The poor-house is in good sanitary condition, and a constant effort is made by the keeper (Mr. Duke) to improve it.

Wake.—Dr. James McKee, Raleigh. The sanitary condition of the city and county is remarkably good. The city and county authorities are in full accord with our efforts to promote sanitation. There has been no epidemic of any kind among domestic animals. The public buildings are all in good sanitary condition.

Warren.—Dr. P. J. Macon, Warrenton. The sanitary condition of the county is good, but spring colds and pneumonia have prevailed in all portions. There has been no epidemic

of disease among domestic animals. The jail and poor-house are in very good sanitary condition; they will be whitewashed with lime soon.

Washington.—Dr. W. H. Ward, Plymouth. No report received from this county this year. What is the matter?

Watanya.—Dr. W. B. Council, Boone. The sanitary condition of the county is good; no sickness of a serious nature has prevailed during the month. I never knew the county to be more healthy than at this time. There has been no epidemic of any kind among domestic animals that I have heard of. The poor-house is in good sanitary condition; the new jail is on hand, will be finished this year; the old jail is in bad condition every way.

Wayne.—Dr. James Spicer, Goldsboro. The sanitary condition of the county is good, but mumps and measles have prevailed in all parts of the county during the past month. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is as good as could be asked. The food and water furnished the prisoners confined in jail is good, and of the 6 prisoners only 4 give evidence of successful vaccination; the food and water served the inmates of the poor-house is good; 6 of the 14 inmates give evidence of successful vaccination.

Wilkes.—No Board of Health organized.

Wilson.—Dr. N. Anderson, Wilson. The sanitary condition of the county is good; with the exception of an extensive prevalence of mumps, the general health of the county has been excellent. The poor-house and jail are in fine sanitary condition.

Yadkin.—No Board of Health organized.

Yancey.—Dr. J. L. Ray, Burnsville. The general sanitary condition of the county is moderately good at present. There has been no epidemic of consequence among domestic animals. The sanitary condition of the jail is very good; the two prisoners are furnished with sufficient food and water, and one of them gives evidence of successful vaccination.

Condition of Jails and Poor-houses by Counties for March, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	a	a	a	a	a	a	a	a
Alexander.....	5	749	a	a	7	638	a	a
Ashe.....								
Alleghany.....	4	500	0	3	1	800	0	0
Anson.....								
Beaufort.....	10	500	3	3	12	600	4	2
Bertie.....								
Bladen.....								
Brunswick.....								
Buncombe.....	25	700	17	18	20	800	15	12
Burke.....								
Cabarrus.....	12	1,240	2	2	24	960	12	10
Caldwell.....	3	1,373	1	2	8	630	1	2
Camden.....	a	a	a	a	a	a	a	a
Carteret.....	2	865	0	1	a	a	a	a
Caswell.....	13	500	a	1	23	1,000	a	2
Catawba.....								
Chatham.....	3	2,603	1	1	22	1,385	10	10
Cherokee.....	2	a	a	a	2	a	a	a
Chowan.....								
Clay.....								
Cleveland.....	10	547	a	2	44	861	a	7
Columbus.....	11	1,511	a	6	7	624	a	0
Craven.....								
Cumberland.....	6	800	4	4	16	1,000	12	10
Currituck.....								
Dare.....								
Davidson.....	9	1,215	0	0	22	721	0	5
Davie.....								
Duplin.....	0	0	0	0	24	a	a	a
Durham.....	1	1,000	a	0	16	1,000	a	2
Edgecombe.....	3	3,375	1	1	35	1,120	1	2
Forsyth.....	18	800	8	6	16	a	4	3

a. No data given.

Condition of Jails and Poor-houses by Counties for March, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin	2	5,000	a	2	18	11,626	a	2
Gaston.....	7	1,086	0	3	18	1,870	4	5
Gates.....								
Graham								
Granville.....								
Greene.....	3	500	a	a	11	1,200	4	1
Guildford.....	12	550	5	6	26	1,200	15	18
Halifax.....								
Harnett.....								
Haywood.....								
Henderson.....	4	1,500	a	4	2	2,500	a	0
Hertford.....								
Hyde.....								
Iredell.....	13	863	a	a	24	462	a	a
Jackson								
Johnston.....	3	4,000	1	2	16	800	6	3
Jones	5	1,110	0	1	5	1,220	0	0
Lenoir.....								
Lincoln.....								
McDowell.....	4	600	2	2	6	550	1	0
Macon.....	3	1,125	0	0	0			
Madison.....	2	742	0	0	8	1,544	0	0
Martin.....								
Mecklenburg.....								
Mitchell.....								
Montgomery.....	4	400	0	3	12	500	0	1
Moore.....								
Nash.....	7	700	a	a	a	a	a	a
New Hanover.....	22	500	12	15	24	600	14	10
Northampton.....	b				38	1,000	15	12
Onslow.....	a	a	a	a	a	a	a	a
Orange.....	2	512	1	0	33	1,652	11	14
Pamlico.....								

a. No data given. b. Jail burned.

Condition of Jails and Poor-houses by Counties for March, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	1	a	0	1	5	a	1	2
Perquimans.....								
Person.....	8	758	a	3	21	1,888	a	5
Pitt.....								
Polk.....			a					
Randolph.....								
Richmond.....	5	876	1	2	12	1,300	2	2
Robeson.....	14	394	a	a	9	800	a	a
Rockingham.....								
Rowan.....	11	2,000	a	a	22	2,500	a	a
Rutherford.....	8	855	2	4	36	720	8	4
Sampson.....	3	a	a	a	30	a	a	a
Stanly.....	3	1,000	0	3	12	c	0	1
Stokes.....								
Surry.....								
Swain.....	1	a	a	a	a	a	a	a
Transylvania.....	2	1,300	1	1	4	2,000	2	2
Tyrrell.....	0	0	0	0	3	a	a	a
Union.....	4	2,000	a	a	14	3,000	a	2
Vance.....	3	3,399	1	1	13	13,208	a	2
Wake.....	30	902	a	a	59	a	a	a
Warren.....	10	1,150	0	7	16	2,085	0	2
Washington.....								
Watauga.....	1	500	a	a	5	1,650	0	5
Wayne.....	6	640	4	4	14	1,650	6	5
Wilkes.....								
Wilson.....	5	2,342	1	1	24	1,062	2	2
Yadkin.....								
Yancey.....	2	1,728	1	1	b			

a. No data given. b. No poor-house. c. Plenty (?).

Meteorological Report for March, 1889.

STATIONS.	TEMPERATURE.								NO. DAYS.							
	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Poor.	Cloudy.	On which rain fell, including hail, snow and sleet	Total rainfall, including hail, snow and sleet (in inches)	Prevailing wind.
Chapel Hill.....	47.7	74.0	i	27.0	j	47.0	19.9	37.0	17	8.0	k	10	h	11	5	h
Chat'oga, Tenn.....	50.2	80.0	17	26.0	10	24.2	31.0	35.0	e	4.0	24	15a	8b	8	7	3.71 N.W.
Charleston, S.C.....	53.0	74.0	f	34.0	11	19.0	18.0	22.0	7	4.0	15	13	8	10	12	7.49 N.
Charlotte.....																
Columbia, S.C.....	54.1	77.0	31	20.5	11	47.5	23.5	30.0	30	6.5	3	13a	6b	12	8	2.44 W.
Hatteras.....	47.0	63.0	31	35.0	10	28.0	10.0	23.0	31	3.0	k	13a	7b	11	9	5.43 N.W.
Kitty Hawk.....	47.0	73.5	28	30.0	10	43.5	16.9	30.5	h	5.6	h	5a	15b	11	10	3.52 N.E.
Knoxv'lle, Tenn.....	47.0	77.0	17	26.0	10	51.0	18.0	34.0	13	2.6	2	8a	13b	10	9	2.08 N.E.
Lynchburg, Va.....	44.6	72.2	17	28.2	12	49.0	17.2	41.0	17	5.3	19	4a	16b	11	11	2.44 N.W.
Norfolk, Va.....	43.1	70.0	g	28.0	10	41.0	14.9	35.0	31	2.0	20	7	12	12	11	7.52 N.W.
Raleigh.....	45.8	74.0	31	27.0	10	47.0	18.5	34.0	31	6.0	3	11	10	10	9	2.72 N.W.
Southport.....	50.1	69.7	27	29.6	10	40.7	16.3	23.0	10	6.7	14	14a	6b	11	9	5.01 N.E.
Wake Forest.....	46.6	72.0	18	25.0	11	47.0	20.5	30.0	h	9.0	h	12	6	13	5	3.23 N.W.
Wilmington.....	49.8	72.0	28	33.0	d	39.0	15.8	30.0	h	3.0	h	14	5	12	11	5.57 N.
Average.....	47.1	73.3	.....	29.1	.....	44.2	18.6	31.1	.....	5.0	.....	.....	.....	.....	3.97	.....

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N.C.....	299.35	30.51	1	29.43	7	1.08
Chat'oga, Tenn.....	300.02	30.36	1	29.47	18 and 19	.89
Charleston, S.C.....	299.53	30.46	1	29.41	19	1.051
Charlotte, N.C.....	c					
Columbia, S.C.....	c					
Hatteras, N.C.....	29.940	30.48	1	29.35	19	1.13
Kitty Hawk, N.C.....	c					
Knoxville, Tenn.....	30.022	30.38	1	29.48	19	.90
Lynchburg, Va.....	29.963	30.53	1	29.53	7	1.08
Norfolk, Va.....	29.933	30.53	1	29.45	19	1.08
Raleigh, N.C.....	24.958	30.53	1	29.52	19	1.01
Southport, N.C.....	c					
Wake Forest, N.C.....	30.224	30.65	1	29.77	7	1.916
Wilmington, N.C.....	29.941	30.49	1	29.40	19	1.09
Average.....	29.916	35.49	.....	29.48	.....	1.01

a, cloudless. b, partly cloudy. c, no barometrical data given. d, 10th and 11th. e, 18th and 14th. f, 18th and 31st. g, 27th and 31st. h, information not given. i, 17th and 31st. j, 10th and 11th. k, 15th and 20th.

Mortuary Report for March, 1889

a no report received *b* no deaths

ELISHA MITCHELL SCIENTIFIC SOCIETY,
CHAPEL HILL, N. C.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTION FIFTY CENTS A YEAR.

J. A. HODGES, M. D.,	Fayetteville.	W. D. HILLIARD, M. D.,	Asheville.
R. H. LEWIS, M. D.,	Raleigh.	PROF. F. P. VENABLE, Ph. D., F. C. S.,	
JULIAN M. BAKER, M. D.,	Tarboro.		Chapel Hill.
H. T. BAHNSON, M. D.,	Salem.	J. L. LUDLOW, C. E.,	Winston.
J. H. TUCKER, M. D.,	Henderson.		

THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

Entered at the postoffice at Wilmington, N. C., as second class mail matter.

VOL. IV.

MAY, 1889.

NO. 2.

New Members of the Board of Health.

Governor Fowle appointed the following gentlemen to serve for two years each on the State Board of Health:

Dr. J. H. Tucker, Henderson.
Mr. J. L. Ludlow, C. E., Winston, and
Prof. F. P. Venable, Ph. D., F. C. S.,
Chapel Hill.

The following gentlemen were elected by the Medical Society of North Carolina, at the recent meeting in Elizabeth City, to serve six years:

Dr. J. A. Hodges, Fayetteville.
Dr. Julian M. Baker, Tarboro.

To the Chairmen of the Boards of County Commissioners, and Others.

We would respectfully request the attention of the chairmen of the various Boards of County Commissioners not, as yet, having regularly established boards of health, or officially

appointed health correspondents, and others interested, to the law in the premises, as this seems to be imperfectly understood in some counties.

The law plainly says—section 5 of the Revised Code of 1885, entitled, “An Act Relating to the Board of Health”—as follows:

“There shall be an auxiliary Board of Health in each county in the State,” and then goes on to specify who shall constitute these boards. Therefore it is *not* optional with the county whether or not it shall organize a Board of Health, but the law is mandatory.

In the same section, the law sets forth that the Superintendent of Health shall be the physician to the county institutions, performing all the offices incident to this position, besides his sanitary work. There is no other way prescribed by law by which the county authorities can get medical advice to the poor-house, jail and house of correction, and for medico-legal purposes.

The following named counties have *no* boards of health or health correspondents: Anson, Bladen, Burke, Clay, Craven, Dare, Davie, Gates, Graham, Halifax, Harnett, Haywood, Hertford, Jackson, Mecklenburg, Mitchell, Moore, Pamlico, Perquimans, Polk, Randolph, Stokes, Surry, Wilkes and Yadkin. In these counties boards should be at once organized, as follows:

Notices should be sent to every legally authorized physician and to the chairman of the Board of County Commissioners, Mayor of county town, county surveyor, or, where no county surveyor exists, to the county town surveyor, to attend a meeting at a specified day and place.

The law does not prescribe who shall call this meeting of organization, but it would be well if the chairman of the Board of County Commissioners would do so, but any one authorized to be a member of the proposed Board of Health may make the call. In most counties, if the time selected be court week, it would insure better attendance, and give an opportunity to enlist the widest interest.

A first meeting of organization may be held at any time, as will be seen by reference to section 7.

The State Board of Health would also suggest that advertisement for preliminary meeting of organization be made in the county newspaper, when available, and that the terms of membership be stated, so that it may be generally known that the law says:

"These boards shall be composed of physicians who shall have complied with the laws of the State in regard to the practice of medicine or surgery, or have a diploma from a regular medical college."

As soon as boards have been organized, the Superintendent of Health will please communicate with the Secretary of the North Carolina Board of Health, at Wilmington, giving the name and address of each member of his board, and all the necessary blanks will be forwarded to him.

The Yellow Fever Outlook for Next Summer.

The unusually mild winter noted in all sections of the country, taken in connection with the fact that yellow fever still lingers in the tropics, is sufficient to cause a marked feeling of uneasiness among the sanitary authorities of the South and Southwest. Similar meteorological conditions were manifest prior to the outbreak of 1878, and there is reason to think that history may repeat itself. Yellow fever, even although of an imported type, with the death of a Lieutenant on board of the *Yantic* in New York harbor on the 14th of January, is enough to cause comment, if not alarm. Should the present balmy weather continue into spring, the month of June will most probably exhibit a yellow fever tendency in the Gulf States, especially in Florida.

Within the last ten years the railroads and steamboats have opened up large additional tracts of territory in the New South; numerous towns have sprung up, filled with unacclimated Northern mechanics, who are not suitable subjects for exposure to the low forms of paludal fevers which annually prevail in many districts south of Kentucky and Tennessee. Rapid transit means the swift spread of infectious and contagious diseases. It then behooves the various railroad and steamboat interests of the Southwest to settle on some fixed sanitary policy; there are millions of dollars of interests at stake, and it is penny wise and pound foolish to subject such interests to a shotgun-quarantine policy; yet this is what may naturally be expected every time an outbreak of yellow fever occurs in all States lying below the Appalachian Ridge. Self-preservation is the first law of nature and railroad corporations, including sleeping-car interests, should have learned by experience, dearly bought, that they will not be trusted by those people through whose territory they carry infected passengers so long as the inhabitants know that such work is not done under medical supervision.

It is only the fine sanitary work done by the New York City Health Department annually that keeps fever out of that port; their work of isolation is more of a protection than the boasted quarantine work of their State authorities.

After New York, Chicago does the best sanitary work in the country, and Chicago watches yellow fever in Florida, although it is far enough north to be almost beyond the range of epidemic probabilities.

The country at large would save millions of dollars annually were it not subjected to the senseless excitements induced by yellow fever outbreaks. If we lived under a more paternal form of government, with a centralized power, much could be accomplished in the prevention of epidemics; but the glorious old doctrine of State rights, more defiant than ever, prevails to an alarming extent, North and South.

As we before remarked, "It is a warm winter." With Jacksonville still in sight and to the memory of many dear, yellow fever on the Yantic in New York harbor, with a death in the middle of January, the outlook for yellow fever next summer is good; alarm is needless, but the warning is given to those most concerned for their best interests.—*The Cincinnati Lancet-Clinic.*

Sewerage vs. Surface Drainage and Combustion.

BY O. D. CHILDS, M. D.

If there be aught in which the people of this century and generation pride themselves it is progress—progress in the arts, but more in the sciences and their scientific attainments, and the many, as we call them, modern improvements. Whether we may call a great sewer a modern improvement or not, many are able to testify that it is a great modern convenience.

Since the world began there has been "waste." No growth or existence without waste, and although the question of the disposal of this waste may not be raised in the country, when

it comes to the densely populated cities, it is the essential question of human existence as well as growth. Not only is the waste, in comparison, much greater per living being, but, in a much greater degree, is its means of disposal more limited, until it is only by artificial means that life is protected.

As we are all aware, this means, at the present day, our large and small, good and bad, convenient and inconvenient, system of sewerage, into which we can wash everything, from the crumbs off the table to the results of the abortionist, to where, no one knows and no one cares, so it is cast from our sight and smell. Probably one of the greatest *conveniences* of our modern mansion, our hotels and public buildings, as well as many less notable places, is the system of sewerage in connection with our public water-supply.

This great convenience need not be described, but must be enjoyed to be fully realized. We build them for their convenience; we build them for their healthfulness; we build them for their economy; we build them for their cleanliness; we build them because others build them.

There is one condition of a sewer which there is not the least excuse for entertaining, and that is the cess-pool sewer. The liabilities of it so overbalances the resources that it is a long way below par. Many endeavor to make themselves think that they are all right in a light sandy soil, but I know, from my own observation, that, in the purest sand, they will fill completely in a remarkably short time.

One of the most malignant causes of disease and death is sewage gas. The elements of which that gas is manufactured, in their crude and unfermented condition, may be taken into the stomach much more safely than the gas can be inhaled and mingled with the blood. In the one condition there is a probability that the buccal and gastric secretions will neutralize the poison, or that the irritability of the nerves will expel the death elements, while in the other case there is no known means of freeing the

blood from its insidious ravages. We may insult the stomach with only a disturbance of harmony, but when we poison the blood we poison the life. More than ninety per cent. of the thought and cunning of the plumber's craft is expended at the present time in perfection of our sewers, to prevent this liability from sewer gas. All this thought is commendable and praiseworthy, but who shall not say they are not commencing at the wrong side of the question? Where is the wisdom of studying to avoid an evil that should never exist? It is one thing to prevent coming in contact with gas, and it is another and much more scientific condition to have no sewer gas to shut out. If it is an absolute necessity to have a sewer, then it is absolutely necessary to be subject to that sewer's consequences, for it is not yet fully known what all the laws and penetrating conditions of sewer gas are. We all know how desirable it is to have a proper outlet for our sewers—not an outlet prepared by man, but where we can use the resources which nature has provided. How nature purifies her springs and streams man cannot now explain, yet the fact remains, that running water, and large bodies of not running water, but sufficiently large to be acted upon by the winds, have means of purification which, many times, seem almost limitless.

If there are laws of purification, if there are laws of nature by which the deadly poison of putrefaction may be neutralized, why should not these laws be a source of health to be cherished, where now we have only poison to be avoided?

Only one way do I see for a remedy to terminate this war, and that is to experiment with chemical conditions till we discover some agent which shall convert sewer waste into purely harmless substance of value. We have odorized until our sensitive olfactories are able to say "Well done," as though the taking of offensiveness from putrefaction made it harmless. We want chemicals which shall be com-

bined with all waste upon its first introduction into the sewer, and which shall neutralize all poisons as well as odors.

There are no delusions in chemical combustion. Chemical laws are the same to-day and forever, and only in chemistry shall we find the true and safe means of disposing of our absolute waste.

Since studying the subject of this paper, I notice an article stating that Dr. C. H. von Klein, of Dayton, Ohio, has perfected a process which will neutralize sewage, and also solidify it, in such a way as to make it burn as readily as coal. If so, we should hail the day with joy, not only for the process of neutralization, but that the substance may be handled, and that with profit—for as soon as there is profit in sewage waste, man will be after it and with a premium, and plenty of means will be devised for its speedy conversion into money before it shall have time to make sewer gas. The utilization of sewage should have ninety per cent. of study rather than the methods of manufacturing, and then the means of avoiding the poison resulting.

For surface water, my convictions, from my present knowledge on this subject, are most decidedly in favor of surface drainage. In surface drainage, although we may have many inconveniences, we have nature's own process of purification, and that process was never improved upon healthfully. Until we shall have a chemically pure means of treating all surface and night waste, the only absolute safety is in combustion of all solids by the furnace and in surface drainage for surface water.

A Cheap Disinfectant.

A cheap and fairly effective disinfectant can be made by dissolving a bushel of salt in a barrel of water, or as much salt as will dissolve, and with this water slack a barrel of quick-lime. This forms a sort of lime, which may be used freely in cellars, out-houses, etc. Smaller proportions may be tried.—*From the Monthly Bulletin of the R. I. Board of Health.*

Drinking Water.

It is an established fact, and well agreed among the medical profession, that polluted drinking water is the primary cause of typhoid fever more than any other cause or thing. We would impress upon our readers that the pollution usually comes from the drainage of privies, sink-drains, barn-yards, and other nuisances, into the family well. Being filtered through the soil, the pollution is generally of a character *not* recognized by either taste, smell or sight; thus being unseen, or not apparent to any of our senses, we are apt to imagine all is safe! But the penalty of our carelessness will overtake us, sooner or later. Be sure that the water supply is protected from such dangers of contamination. Many other ills are also contracted by the use of impure water.

Summary of Mortuary Statistics from Towns for the Month of April, 1889.

Mortuary reports were received from ---- towns for the month of April, 1889, showing as follows:

	<i>White.</i>	<i>Colored.</i>	<i>Total.</i>
Total population--	54,787	49,716	104,493
Total deaths-----	45	88	133
Temporary annual death rate per 1,000 -----	9.6	20.4	14.4
Deaths under 5 years -----	10	27	37
<i>Cause of Death.</i>	<i>White.</i>	<i>Colored.</i>	<i>Total.</i>
Typhoid fever--	0	2	2
Malarial fever--	0	4	4
Measles-----	1	0	1
Pneumonia -----	0	4	4
Consumption --	2	7	9
Brain diseases--	3	1	4
Heart diseases--	2	3	5
Neurotic diseases	0	2	2
Diarrh'al diseases	1	5	6
All other diseases	30	53	83

<i>Cause of Death.</i>	<i>White.</i>	<i>Colored.</i>	<i>Total.</i>
Accidents and violence-----	2	2	4
Still-born -----	4	5	9
Total-----	45	88	133

Review of Diseases Reported by Counties for the Month of April, 1889.

Bright's disease was reported from Orange county.

Bronchitis was reported from Alleghany, Cherokee, Nash, Sampson and Warren counties.

Bronchial catarrh was reported from McDowell county.

Catarrhal fever was reported from Gaston county.

Cerebro-spinal meningitis was reported from Brunswick and Orange counties.

Chicken-cholera was reported from Chatham, Orange, Person, Richmond and Warren counties.

Chicken-pox was reported from Alleghany county.

Consumption was reported from Orange county.

Diarrheal diseases were reported from Cumberland, New Hanover, Sampson, Person and Richmond counties.

Diphtheria was reported from Guilford and Orange counties.

Diphtheritic sore-throat was reported from Gaston county.

Distemper was reported from Franklin, Jones and Sampson counties.

Flux was reported from Alexander county.

Hog-cholera was reported from Columbus, Northampton, Richmond and Sampson counties.

Inflammatory rheumatism was reported from Alleghany county.

Malarial fever was reported from Cumberland, Jones, New Hanover, Orange and Sampson counties.

Measles was reported from Cabarrus, Caldwell, Caswell, Davidson, Forsyth, Guilford, Johnston, McDowell, Richmond, Robeson, Rowan, Sampson, Stanly, Union and Wayne counties.

Mumps was reported from Alleghany, Chat-ham, Davidson, Franklin, Montgomery, Nash, New Hanover, Orange, Person, Richmond, Rowan and Union counties.

Phthisis was reported from Warren county.

Paralysis was reported from Iredell county.

Pneumonia was reported from Alleghany, Forsyth, Henderson, Nash, Sampson, Swain, Transylvania, Vance and Warren counties.

Pernicious malarial fever was reported from Johnston county.

Roseola was reported from Person county.

Scarlatina was reported from Currituck and Robeson counties.

Typhoid fever was reported from Ashe, Cabarrus, New Hanover and Union counties.

Whooping-cough was reported from Cabarrus, Johnston, Macon, Robeson, Sampson and Wayne counties.

Ulceration of the bowels was reported from Iredell and Orange counties.

Summary of Reports Received from the Counties for the Month of April, 1889.

Alamance.—Dr. George W. Long, Graham. The general sanitary condition of the public buildings is good; the court-house will soon be completed and will be a great improvement. The health of the twenty-two inmates of the poor-house is good, with the exception of two cases of consumption; they are supplied with good well-water and wholesome food. The four prisoners confined in jail are furnished with good well-water and wholesome food, and three of them give evidence of successful vaccination, and three can read and write.

Alexander.—Dr. H. McD. Little, Taylors-ville. The general sanitary condition of the county is good; not much sickness, with the exception of a few cases of flux. There has

been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is good. The prisoners confined are furnished good well-water and good food; none give evidence of successful vaccination, and two of them can read and write. The inmates of the poor-house are supplied with good well-water and good food, and none of them give evidence of successful vaccination, nor can any of them read or write.

Ashe.—Dr. J. W. Colvard, Jefferson. The sanitary condition of this county is very good, and weather fair. We have had some frost during the last week. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good, and some efforts are being made to better the condition of the jail. Its three inmates are furnished all the food and water they want; two of them can read and write. The nine inmates of the poor-house are supplied with all the water they will use and with all the food they want, but only one can either read and write or gives evidence of successful vaccination.

Alleghany.—Dr. George Daughton, Sparta. A few cases of pneumonia, bronchitis and inflammatory rheumatism, mumps and chicken-pox to report. With these exceptions, the sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The sanitary condition of the jail is not good, but I think some improvements will be made soon. Its two prisoners are supplied with well-water and sufficient food, one giving evidence of successful vaccination, and one can read and write. The one inmate of the poor-house is supplied with spring-water, but does not give any evidence of successful vaccination; can neither read or write.

Anson.—Has no Board of Health.

Beaufort.—Dr. Wm. A. Blount, Wash-ing-ton. From all I can learn, the health of the county is good. There has been no epidemic among domestic animals. Some of the prison-

ers in jail have a less number of cubic feet of air than others, depending upon the number confined in each cell. The jail is insecure, hence the lower cells are rather crowded. They are served with good food and water, and three of them give evidence of successful vaccination, and four can read and write. The eleven inmates of the poor-house are furnished with good food and water, and two of them give evidence of successful vaccination, and two of them can read and write.

Bertie.—Dr. H. V. Dunston, Windsor. The general sanitary condition of the county is fair, no sickness in any portion of the county. There has been no epidemic of any kind among domestic animals. Some improvements are being made to jail and poor-house with a view of bettering its sanitary condition. The three prisoners confined in jail are supplied with freestone water, and animal and vegetable food, but none of them can read or write; the eight inmates of the poor-house are furnished with freestone water and animal and vegetable food, and none can read or write.

Bladen.—No Board of Health organized.

Brunswick.—Dr. D. B. McNeill, Supply. Not much sickness during April. Dr. Curtis reported a few cases of cerebro-spinal meningitis among very young children at Southport. No efforts are being made at improvement of sanitary condition of public buildings.

Buncombe.—Dr. H. B. Weaver, Asheville. No report received for April.

Burke.—No Board of Health organized.

Cabarrus.—Dr. Robert S. Young, Concord. The general sanitary condition of the county is good, but have had an epidemic of whooping-cough and several cases of typhoid fever and measles. The general sanitary condition of the public buildings is good. The eight prisoners confined in jail are furnished with good food and water, but none of them give evidence of successful vaccination and only two can read and write; while the twenty inmates of the poor-house are also supplied with good

food and water, seven of these give evidence of successful vaccination, and ten can read and write.

Caldwell.—Dr. R. L. Beall, Lenoir. Measles have prevailed in some portions of the county, otherwise there is very little sickness. There has been no epidemic of any kind among domestic animals. The jail has been repaired and is in fair condition; its one inmate is supplied with good spring-water and plenty of meat and bread; can neither read nor write, never been vaccinated. The poor-house is in good sanitary condition; its eight inmates are furnished with good water and plenty of meat and bread, none give evidence of successful vaccination, and only two can read and write.

Camden.—Dr. Ed. B. Ferebee, Bellcross. No report received for April.

Carteret.—Dr. M. F. Arendell, Morehead City. The general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The public buildings are clean and comfortable. The two prisoners confined in the jail are furnished with ample water and good food, and one gives evidence of successful vaccination, and can read and write. There are no inmates in poor-house at present.

Caswell.—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county is very good, but there has been an epidemic of measles in most all portions. The sanitary condition of the public buildings is good, but no improvements have been made since last report. The one prisoner confined in jail is furnished with good freestone water and fair food, but cannot read or write. The twenty-two inmates of the poor-house are supplied with good freestone water and fair food—nine of them giving evidence of successful vaccination, and two are able to read and write.

Catawba.—Dr. J. M. McCorkle, Newton. The sanitary condition of the county is good. There has been no epidemic among domestic

animals. The sanitary condition of the public buildings is as good as their crowded condition will allow. The eleven prisoners confined in jail are furnished good food and water; the thirty-one inmates of the poor-house are also supplied with good food and water; three of the former and nine of the latter give evidence of successful vaccination, while four of the former and eight of the latter can read and write.

Chatham.—Dr. L. A. Hanks, Pittsboro. The sanitary condition of the county is good, as far as known, with the exception of a neighborhood in the northwestern portion. Measures have been taken to abate the nuisance. Mumps of a severe type have prevailed in several portions of the county; there have also been several cases of typhoid fever reported. There has been an epidemic of chicken-cholera. The sanitary condition of the public buildings is very good, not exceeded, perhaps, in the State; cleanliness and ventilation are enforced. The four prisoners confined in jail are supplied with good limestone water and good food; two of them give evidence of successful vaccination, and two of them can read. The twenty-one inmates of the poor-house are supplied with good freestone water and good food; ten of them give evidence of successful vaccination, eleven can read and write.

Cherokee.—Dr. J. F. Abernathy, Murphy. The health of this county has never been better to my knowledge; nevertheless we have a greater mortality than for any preceding month; three from old age, one from chronic bronchitis, the other from burns from an accidental fire. Hog-cholera has subsided in this county for the first time in fifteen or twenty years. The public buildings are in excellent sanitary condition, no sickness prevailing among prisoners or paupers at this time.

Chowan.—Dr. R. W. Winborne, Barnitz. Board of Health organized in March, but no report received so far.

Clay.—No Board of Health organized.

Cleveland.—Dr. J. C. Gidney, Shelby. With the exception of a little catarrhal affections and derangement of liver, this county has been very healthy. There has been no epidemic among domestic animals. The sanitary condition of the poor-house is good; its forty-four inmates are supplied with good food and water, and seven of them can read and write; the jail is in as good sanitary condition as can be expected, its fifteen prisoners are supplied with good food and water and nine of them can read and write.

Columbus.—Dr. Isaac Jackson, Whiteville. The general sanitary condition of the county is good, although on my return from the Medical Convention I heard of three fatal cases of pneumonia. There has been an epidemic of hog-cholera in some portions of our county.

Cumberland.—Dr. J. A. Hodges, Fayetteville. There has been but little sickness in the county during this month. A few cases of malaia have been reported, and some cases of diarrhoeal troubles, in the western portion of the county. The jail and poor-house are in better sanitary condition this spring than in many years. The premises are scrupulously neat, and will be kept so, if possible; the interior of all the cells and wards have been recently whitewashed, and my thanks are due the board of county commissioners for their liberal and generous encouragement in this work. The ten prisoners confined in jail are supplied with very good water from a well on the premises, and a sufficient quantity of bacon, vegetables and bread; seven of these give evidence of successful vaccination, and six of them can read and write. The fourteen inmates of the poor-house are furnished with slightly chalybeate water; their rations are the same as those given for the prisoners in jail, but varied occasionally with fish, molasses, etc.; nine give evidence of successful vaccination, and six can read and write.

Craven.—No Board of Health organized.

Currituck.—Dr. F. W. Ritter, Moyock. Owing to the excessive humidity of the atmosphere and sudden vicissitudes of temperature, bronchial and pulmonary affections have been prevalent. I have three cases of scarlatina simplex to report, all in one family, which by complete isolation spread no further; all made good recoveries. I think that malarial troubles will appear earlier than usual this year. There has been no epidemic among domestic animals. The jail is in good sanitary condition.

Dare.—No Board of Health organized.

Davidson.—Dr. R. L. Payne, Jr. The general sanitary condition of the county is good. Mumps and measles have prevailed in many portions. There has been no epidemic among domestic animals. The sanitary condition of the county public buildings is good; am now having jail and poor-house cleansed and whitewashed. The seven prisoners confined in jail are supplied with fair food and water; none give evidence of successful vaccination nor can read and write. There are twenty-two inmates of the poor-house who are supplied with good water and fair food, but none show signs of successful vaccination, and only five can read and write.

Davie.—Has no Board of Health.

Duplin.—Dr. James W. Blount, Kenansville. The general sanitary condition of the county is good; but very little sickness of any character. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is not good, though the inmates generally enjoy fair health.

Durham.—Dr. N. M. Johnson, Durham. The sanitary condition of the county is good so far as I am aware. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is better in some respects than before; we have our jail supplied with a plentiful supply of good water from our water-works, also some

improvements at our poor and work houses. The six prisoners confined in jail and the seven in house of correction are supplied with wholesome food, the former with water from the water-works and the latter with soft well-water; two of the former and four of the latter can read and write. The fourteen inmates in the poor-house are supplied with soft well water and good food; only one can read and write.

Edgecombe.—Dr. Julian M. Baker, Tarboro. The sanitary condition of the county is fair. The six prisoners confined in jail are furnished with good food and water, four of them giving evidence of successful vaccination, but none of them can read and write; the twenty-nine inmates of the poor-house are supplied with good food and water; four of these give signs of successful vaccination, and two can read and write.

Forsyth.—Dr. D. N. Dalton, Jr., Winston. The general sanitary condition of the county is good, but we have had several cases of pneumonia and a mild epidemic of measles. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good. The twenty-four prisoners confined in jail are given good and sufficient food and water, ten of them giving evidence of successful vaccination, eight can read and write. The eighteen inmates of the poor-house are supplied with good and sufficient food and water; four of them can read and write and three give evidence of successful vaccination.

Franklin.—Dr. E. S. Foster, Louisburg. The sanitary condition of the county, so far as my information extends, is very good, but mumps have prevailed in some portions. There has been no epidemic of any kind among domestic animals except distemper among dogs. Owing to the recent break from jail of prisoners the damage inflicted to the building was such as to make two rooms very uncomfortable;

this, however, will soon be remedied by the board of county commissioners. The six prisoners in jail are given spring-water and the food served them is of good quality and sufficient in quantity; the same may be said of the food supplied the nineteen inmates of the poor-house, they are supplied with well-water; only one of this number can read and write.

Gaston.—Dr. E. B. Holland, Dallas. Catarrhal fever and a few cases of diphtheritic sore throat have prevailed, but of a malignant type. No disease among domestic animals. The five prisoners confined in the jail are given good food and water; none give evidence of successful vaccination, and only two of them can read and write. The nineteen inmates of the poor-house are also supplied with good food and water; three of these giving evidence of successful vaccination and six can read and write.

Gates.—Has no Board of Health.

Graham.—Has no Board of Health.

Granville.—Dr. J. M. Hays, Oxford. The general sanitary condition of the county is unusually good, less sickness having prevailed during the month of April than for several months previously. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the jail and poor-house is good. The jail has a complete system of sewerage. In the centre of one large room are the several steel cells, which are open to ventilation like cages. Its five prisoners are supplied with good water and abundant and good food; one giving evidence of successful vaccination, and three can read and write. The eighteen inmates of the poor-house are supplied with good water and abundant and good food; ten of them giving evidence of successful vaccination, and seven can read and write.

Greene.—Dr. W. C. Galloway, Snow Hill. The county is in pretty fair health. The public buildings are in good sanitary condition. The ten prisoners confined in jail are

supplied with a sufficient quantity of food and water, which is also sufficient in quality. The same may be said of the food and water furnished the twelve inmates of the poor-house; eight of the former and one of the latter can read and write, and four of the latter give evidence of successful vaccination.

Guilford.—Dr. R. W. Tate, Greensboro. The general sanitary condition of the county is good; with the exception of measles of a mild type which has prevailed in portions of the county, we have had but little sickness. There has been no epidemic among domestic animals. The sanitary condition of the poor-house is good, the thirty-two paupers are well cared for, receiving pure water and wholesome food, eight of them giving evidence of successful vaccination, and nine can read and write. The jail is entirely too small for the demand and poorly ventilated, but efforts are making towards improvement; its present twenty-four prisoners receive good food and water, twelve of them giving evidence of successful vaccination and thirteen are able to read and write.

Halifax.—Has no Board of Health.

Harnett.—Has no Board of Health.

Haywood.—Dr. R. L. Allen, Waynesville. No report received for this month.

Henderson.—Dr. L. L. Johnston, Angeline. The general sanitary condition of the county is still good although we are having several cases of pneumonia in different portions of the county—two deaths reported; there is some other sickness, but not of a dangerous character. There has been no epidemic of any kind among domestic animals. The jail and poor-house are in very good sanitary condition; we will have a new jail and poor-house in the near future.

Hertford.—Has no Board of Health.

Hyde.—Dr. Edward Clark, Middleton. No report received for this month.

Iredell.—Dr. M. H. Hill, Statesville. Judging from the information I have from two phy-

sicians out in the country, the sanitary condition of the county is excellent. Still, Death the reaper gets in his work, as you will see. Two were from old age, six from unknown causes, one from neuralgia, one from ulceration of the bowels, one from being cut with an axe, one from pneumonia and one from consumption, who was brought from Texas to die here. We have the same public buildings we have had all these years and no efforts at improvement, but we hope to have a *public building* in the course of human events.

Jackson.—Has no Board of Health.

Johnston.—L. L. Sasser, Smithfield. The sanitary condition of the county is very good, but pulmonary and digestive troubles have prevailed. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is very good. The four prisoners confined in jail are given abundant water and sufficient food; only one gives evidence of successful vaccination, and two can read and write. The sixteen inmates of the poor-house are supplied with abundant water and sufficient food; five giving evidence of successful vaccination, and six can read and write.

Jones.—Dr. C. B. Woodley, Trenton. The sanitary condition of the county, so far as can be learned, is good, but malarial fever has prevailed in some portions. There has been no epidemic of distemper among domestic animals. The three inmates of the poor-house are allowed ten pounds of meat, seven of flour and thirty-three of meal a piece, per month, and all the well-water they want.

Lenoir.—There was a Board of health organized in this county, but we cannot obtain any report.

Lincoln.—Dr. W. L. Crouse, Lincolnton. For the last month this county has been very healthy; all contagious diseases that did exist seem to have stopped; we have no malaria or typhoid fever or the diseases common to the

spring season. Our jail contains nine prisoners well provided for. Our poor-house is full, it is kindly tended and the inmates well fed and clothed.

Madison.—Dr. J. K. Hardwick, Marshall. The general sanitary condition of the county is good. The general sanitary condition of the public buildings is very good. The two prisoners confined in jail and the eight inmates of the poor-house are given good food and water, but none of them give either signs of successful vaccination nor can they read and write.

McDowell.—Dr. J. H. Gilkey, Marion. The general sanitary condition of the county is very good and the health of the county unusually good for April. No sickness of any consequence, except that bronchial catarrh and measles have prevailed to a limited extent in some portions. There has been no epidemic among domestic animals. The public buildings are in good sanitary condition. The four prisoners confined in jail and the six inmates of the poor-house are all given good food and water; two of the former give evidence of successful vaccination and two can read and write; while only one of the latter can read and write and gives signs of successful vaccination.

Macon.—Dr. J. M. Lyle, Franklin. The general health of the county is very good, but we had an epidemic of whooping-cough. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good. The prisoners are well cared for.

Martin.—Dr. W. H. Harrell, Williamston. No report received this month.

Mecklenburg.—Has no Board of Health.

Mitchell.—No Board of Health organized.

Montgomery.—Dr. W. A. Simmons, Troy. The county is remarkably healthy for any season of the year; nothing but colds, aches and pains complained of generally, but mumps

have prevailed in the western part of the county. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good enough, unless we had money to spare on improvements.

Moore.—Has no Board of Health.

Nash.—Dr. G. W. Lewis, Spring Hope. The sanitary condition of the county is very good. We had but little sickness during April, but mumps have been quite prevalent. There have also been a few cases of bronchitis and pneumonia reported. There has been no epidemic among domestic animals. The jail and poor-house are in good sanitary condition, and their inmates have plenty to eat and have good water to drink.

New Hanover.—Dr. F. W. Potter, Wilmington. I have been informed that there has been very little sickness in the county, other than colds. A few cases of mumps have occurred on the sound (sea-coast). There has been no epidemic of any kind among domestic animals. The jail is in good sanitary condition, well ventilated, and well scoured and whitewashed when required; two cases treated. The four prisoners are given water from water-works *ad libitum*, and are supplied daily each with one pound of bread and one pound of beef or bacon; three give evidence of successful vaccination, and two can read and write. No case of disease among the six prisoners in house of correction; house is very clean; they are given cistern-water *ad libitum*, and one pound of bread and one pound of bacon or beef daily; four give evidence of successful vaccination, and three can read and write. The poor-house has been well kept, in a sanitary point of view; three cases of sickness treated during the month. Its twenty-five inmates are given cistern-water *ad libitum*, and each receives daily one pound of bread and one pound of beef and bacon. Eighteen of these

give evidence of successful vaccination, and only eight can read and write.

Northampton.—Dr. H. W. Lewis, Jackson. The general sanitary condition of the county is very good; but very little sickness has prevailed in any portion. There has been an epidemic of hog-cholera. Continued efforts at improvement are being made at poor-house.

Onslow.—Dr. J. L. Nicholson, Richlands. No report received for April.

Orange.—Dr. D. C. Parris, Hillsboro. The general sanitary condition of the county is still very good though a few cases of cerebro-spinal meningitis and diphtheria have occurred in northern part; a few mild cases of malarial fever have also occurred. Chicken-cholera has occurred in some parts of the county, but not as an epidemic. Both jail and poor-house are in good sanitary condition; lime is used plentifully in each. Our mayor's office and guard house is finished up in first class style and consists of a large room in front for use of the mayor and the board of county commissioners, and two neat and nice cells in the rear for the accommodation of transgressors. The two prisoners in jail and the thirty-three inmates of the poor-house are furnished with healthful, substantial and ample food, the former with pure well and the latter with pure spring water; one of the former and twelve of the latter give evidence of successful vaccination, but only fourteen of the latter can read and write.

Pamlico.—Has no Board of Health.

Pasquotank.—Has no Board of Health.

Pender.—Dr. S. S. Satchwell, Rocky Point. No report received.

Person.—Dr. O. G. Nichols, Roxboro. Mumps has prevailed in certain parts of the county, roseola and dysentery have been very frequent in some sections, but the general health of the county is better than I have ever known it. Chicken-cholera has prevailed in certain portions. The sanitary condition of

the poor-house is very good; that of the jail is not so good, but better than it has been.

Perquimans.—No Board of Health organized.

Pitt.—Dr. J. T. Sledge, Greenville. No report received this month.

Polk.—No Board of Health organized.

Randolph.—No Board of Health organized.

Richmond.—Dr. W. W. Covington, Rockingham. The sanitary condition of this portion of the county is good; no sickness of any kind except measles and a few cases of dysentery. There has been an epidemic of cholera among hogs and chickens.

Robeson.—R. F. Lewis, Lumberton. The general sanitary condition of the county is pretty good, but measles and whooping-cough have prevailed in some portions. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is fair; the fourteen prisoners confined in jail, and the eight inmates of the poor house, are all supplied with good water and sufficient food.

Rockingham.—Dr. T. E. Balsley, Reidsville. No report received for April.

Rowan.—Dr. J. J. Summerell, Salisbury. Good health prevails everywhere in our county; no change in its sanitary condition since last report. There have been a few cases of measles in one or two neighborhoods, and mumps have prevailed very generally about the city, but no one very sick; few cases required the attendance of a doctor. There has been no epidemic among domestic animals during April. The public buildings are in good sanitary condition. No efforts at improvement except the usual clearing up, and now and then a coat of whitewash on the inside of the buildings, which latter are all brick. The seven prisoners confined in jail are given plenty of well-water and good, plain, well-prepared and sufficient food; only one giving evidence of successful vaccination, and one can read and write. The twenty-

two inmates of the poor-house are supplied with an unlimited amount of well-water and sufficient good, plain and well-prepared food; of them, only two give evidence of successful vaccination.

Rutherford.—Dr. E. B. Harris, Rutherfordton. A more healthy county cannot be found; not a case of sickness anywhere during April, that I have heard of. The public buildings are in satisfactory sanitary condition. The twenty-four prisoners confined in jail and the thirty-nine inmates in the poor-house are supplied with good food and water; three of the former and ten of the latter give evidence of successful vaccination, while nine of the former and six of the latter can read and write.

Sampson.—Dr. John A. Stevens, Clinton. The general sanitary condition of the county is fair, but whooping-cough, measles, bronchitis, pneumonia and malarial fever with a few cases of diarrhoea and dysentery are the diseases to report this month. There has been an epidemic of hog-cholera and distemper among horses. Our poor-house is in excellent sanitary condition; one of the twenty-three inmates can read and write and one gives evidence of successful vaccination. The sanitary condition of the jail is somewhat improved since last report, but intend to keep stirring the matter up until we get a new jail, which our present board of county commissioners have promised to do soon; of the three prisoners confined in jail at present two give evidence of successful vaccination and one can read and write.

Stanly.—Dr. R. Anderson, Albemarle. The sanitary condition of the county could not be much better, but we have had a mild type of measles in some portions. There has been no epidemic among domestic animals.

Stokes.—No Board of Health organized.

Surry.—No Board of Health organized.

Swain.—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county

is good; only a few cases of pneumonia in a mild form to report this month. Our water supply for the city will be all right soon. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is as good as it can be under present circumstances.

Transylvania.—Dr. H. Farmer, Brevard. The sanitary condition of the county has been very good for the past month, with the exception of a few cases of pneumonia. There has been no epidemic among domestic animals. As reported last month, the jail and courthouse are both in a bad condition, and there has been no effort, as yet, to repair them. The poor-house is in excellent sanitary condition. The one prisoner confined in jail, and the four inmates of the poor-house, are supplied with excellent water and good and wholesome food, but the one in the former only gives evidence of successful vaccination, while one each of the jail and poor-house can read and write.

Tyrrell.—Dr. Ab. Alexander, Columbia. No sickness to report. The two inmates in poor-house receive sufficient food and water.

Union.—Dr. W. C. Ramsay, Monroe. Measles has subsided, to a great extent, in all portions of the county; two or three deaths reported therefrom. Mumps still prevail, but are declining; have also had a few cases of typhoid fever. There has been no epidemic of any disease among domestic animals. The poor-house is in good sanitary condition; that of the jail is inferior; no efforts at improvement.

Vance.—Dr. A. Cheatham, Henderson. The sanitary condition of the county is much better than last month, but have had a few cases of pneumonia and rheumatism. I have heard that there were several cases of cerebro-spinal meningitis (last month) but no report of them sent in. There has been no epidemic among domestic animals. The general sanitary con-

dition of the public buildings is good. The eight prisoners confined in jail and the twelve inmates of the poor-house receive plenty of water and good food,

Wake.—Dr. James McKee, Raleigh. The general sanitary condition of the county and city is good. There has been no epidemic among domestic animals. All of the public buildings are in good sanitary condition. The five prisoners confined in jail are given pure water obtained from the water-works and varied and abundant food. The sixty-two prisoners confined in the house of correction are made to work on the public roads and are given pure and abundant water obtained from wells and springs and are furnished varied and abundant food. The fifty inmates of the poor-house are furnished with well and spring water and are supplied varied and abundant food. .

Warren.—Dr. P. J. Macon, Warrenton. The general sanitary condition of the county was never better with the exception of pneumonia and phthisis among the colored, which is on the increase. There has been an epidemic of chicken-cholera. The jail is in first-class sanitary condition—one case of typho-malarial fever contracted in the swamps of Northampton county; its four prisoners are given soft well-water and sufficient food. The poor-house is in good sanitary condition, not a death having occurred in two months.

Washington.—Dr. W. H. Ward, Plymouth. No report received from this county this year.

Watauga.—Dr. W. B. Council, Boone. No report received for April.

Wayne.—Dr. James Spicer, Goldsboro. The general sanitary condition of the county is good, but measles and mumps have prevailed in all portions. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is as good as could be desired. The six prisoners confined in jail, and the sixteen inmates of the poor-house, are given good food and water; of the

former, four give evidence of successful vaccination, while of the latter, seven; three of the former and two of the latter can read and write.

Wilkes.—No Board of Health organized.

Wilson.—Dr. N. Anderson, Wilson. The

general health of the county is good. The public buildings are in fine sanitary condition.

Yadkin.—No Board of Health organized.

Yancey.—Dr. John L. Ray, Burnsville. No report received for April.

Condition of Jails and Poor-houses by Counties for April, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	4	900	3	3	22	700	0	0
Alexander.....	4	749	0	2	7	638	0	0
Ashe.....	3	749	a	2	9	628	1	1
Alleghany.....	2	800	1	1	1	1,000	0	0
Anson.....								
Beaufort.....	7	500	3	4	11	700	2	2
Bertie.....	3	640	0	0	8	896	0	0
Bladen.....								
Brunswick.....	5	832	a	a	10	1,100	a	a
Buncombe.....								
Burke.....								
Cabarrus.....								
Caldwell.....	1	2,860	0	0	8	630	0	2
Camden.....								
Carteret.....	2	860	1	1	0			
Caswell.....	1	500	a	0	22	1,000	9	2
Catawba.....	11	600	3	4	31	750	9	8
Chatham.....	4	1,952	2	2	21	1,394	10	11
Cherokee.....	4	a	a	a	2	a	a	a
Chowan.....								
Clay.....								
Cleveland.....	15	364	a	7	14	856	a	9
Columbus.....	7	2,376	a	1	6	729	a	0
Craven.....								
Cumberland.....	10	800	7	6	14	1,000	9	6
Currituck.....	0				a			
Dare.....								
Davidson.....	7	1,562	0	0	22	720	0	5
Davie.....								
Duplin.....	0				23	a	a	a
Durham.....	6	1,000	a	2	14	a	a	1
Edgecombe.....	6	1,922	4	0	29	2,041	4	2
Forsyth.....								

a. No data given.

Condition of Jails and Poor-houses by Counties for April, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number Inmates in.	Space allotted each (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin.....	6	5,000	a	a	19	11,626	a	1
Gaston.....	15	1,521	0	2	19	1,771	3	6
Gates.....								
Graham.....								
Granville.....	5	5,000	1	3	18	850	10	7
Greene.....	10	500	a	8	12	1,000	4	1
Guilford.....	24	300	8	9	32	1,250	12	13
Halifax.....								
Harnett.....								
Haywood.....								
Henderson.....	4	1,500	a	3	2	2,500	a	0
Hertford.....								
Hyde.....								
Iredell.....	22	520	a	a	23	482	a	a
Jackson.....								
Johnston.....	4	4,000	1	2	16	800	5	6
Jones.....	a	a	a	a	3	1,120	a	a
Lenoir.....								
Lincoln.....	9							
McDowell.....	4	550	2	2	6	600	1	1
Macon.....	7	540	2	3	0	0	0	0
Madison.....	2	742	0	0	8	1,544	0	0
Martin.....								
Mecklenburg.....								
Mitchell.....								
Montgomery.....	0				12	500	a	a
Moore.....								
Nash.....	7	a	3	4	20	a	a	a
New Hanover.....								
Northampton.....								
Onslow.....								
Orange.....	2	512	1	a	33	2,048	12	14
Pamlico.....								

a. No data given.

Condition of Jails and Poor-houses by Counties for April, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....								
Perquimans.....								
Person.....	1	3,000	a	3	23	1,886	a	5
Pitt.....								
Polk.....								
Randolph.....								
Richmond.....	4	1,296	0	0	12	867	0	0
Robeson.....	14	493	a	a	8	900	a	a
Rockingham.....								
Rowan.....	7	7,079	1	1	22	1,564	2	a
Rutherford.....	24	285	3	9	39	664	10	6
Sampson.....	3	a	2	1	23	a	1	1
Stanly.....	0	.....	.....	.....	12	b	0	1
Stokes.....								
Surry.....								
Swain.....	1	a	a	a	a	a	a	a
Transylvania.....	1	1,200	1	1	4	2,000	a	1
Tyrrell.....	0	0	0	0	2	11,000	a	a
Union.....	3	2,000	0	1	14	3,000	a	2
Vance.....	8	1,295	a	3	12	14,309	a	3
Wake.....	5	5,415	a	a	50	a	a	a
Warren.....	4	2,860	a	3	14	3,160	a	3
Washington.....								
Watauga.....								
Wayne.....	6	876	4	3	16	1,650	7	2
Wilkes.....								**
Wilson.....	7	1,739	1	1	26	1,037	2	2
Yadkin.....								
Yancey.....								

a. No data given. b. Plenty (?).

Meteorological Report for April, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.				
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	Total rainfall, including hail, snow and sleet (in inches).
															Prevailing wind.
Chapel Hill.....	58.8	90.0	12	33.0	7	57.0	21.5	36.0	11	7.0	14	c	c	c	3.75 c
Chat'oga, Tenn.	60.2	86.0	11	37.0	7	49.2	22.8	36.0	11	8.0	d	17a	6b	7	8 3.21 W.
Charleston, S.C.	61.0	85.0	12	42.0	7	43.0	23.0	28.0	c	5.0	c	19	5	6	8 2.41 S.W.
Charlotte.....	59.0	88.0	12	38.0	7&8	48.0	22.0	46.0	c	32.0	c	14	8	8	9 2.60 W.
Columbia, S. C.	64.7	87.5	13	39.0	7	48.5	c	c	c	c	10a	15b	5	5	1.51 N.E.
Hatteras	56.0	69.0	11	38.0	7	31.0	10.5	20.0	6	3.0	14	11a	7b	12	12 10.08 N.
Kitty Hawk.....	56.7	81.5	3	40.7	5	40.8	22.4	37.0	3	7.0	17	0a	17b	13	15 9.56 S.W.
Knoxv'le, Tenn	58.0	83.0	11	32.0	6	51.0	22.0	34.0	11	5.0	1	14a	11b	5	10 1.92 W.
Lynchburg, Va.....															
Norfolk, Va.....	55.5	89.0	12	36.0	8	53.0	16.7	37.0	3	4.0	16	8	8	14	15 11.87 S. E.
Raleigh	57.6	89.0	12	32.0	6	57.0	21.2	35.0	11	7.0	16	14	8	8	12 4.01 N.W.
Southport.....	59.5	73.4	30	40.6	7	33.4	19.7	21.9	19	2.2	2	12a	9b	9	13 2.04 S.W.
Wake Forest....	57.1	88.0	12	32.0	7	56.0	29.0	34.0	c	5.0	c	12	9	9	6 4.34 N. E.
Wilmington	58.8	86.0	12	42.0	7&9	44.0	17.4	29.0	9	6.0	26	11a	11b	8	11 2.13 S.W.
Average.....															

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.....	29.96	30.33	23	29.40	26	.93
Chattanooga, Tenn.....	30.01	30.43	7	29.71	27	.72
Charleston, S. C.....	30.00	30.31	23	29.56	26	.75
Charlotte, N. C.....	29.99	30.40	23	29.56	27	.84
Columbia, S. C.....	c					
Hatteras, N. C.....	29.96	30.42	23	29.31	26	1.11
Kitty Hawk, N. C.....	c					
Knoxville, Tenn.....	30.03	30.50	7	29.68	27	.82
Lynchburg, Va.....	30.03					
Norfolk, Va.....	29.95	30.46	23	29.19	26	1.27
Raleigh, N. C.....	29.96	30.40	23	29.42	26	.98
Southport, N. C.....	c					
Wake Forest, N. C.....	29.86	33.32	23	29.15	4	4.17
Wilmington, N. C.....	29.97	30.35	23	29.47	26	4.17
Average.....						

a, cloudless. b, partly cloudy. c, no data. d, 1st, 14th and 15th.

Mortuary Report for April, 1889.

TOWNS AND REPORTERS.	Races.	Population.			Temporary Annual death rate per 1,000.	Typhoid Fever.	Scarlet Fever.	Malaria Fever.	Diphtheria.	Whooping-Cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Diarrhoeal Diseases.	All other Diseases.	Acc'dint & Violence.	Suicide.	By Races.		Total	
		By Races	Total	By Races	Tot.																By Towns	Deaths	By Towns	Deaths
Asheville.....	White	7,000	10,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. H. B. Weaver.....	Color'd	3,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte.....	White	7,500	12,500	14.4	21.6	16.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	19	3	5
Dr. J. Scarr.....	Color'd	5,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Durham.....	White	4,500	8,000	2.4	15.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. N. M. Johnson.....	Color'd	3,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	11	1	1
Fayetteville.....	White	2,800	5,000	0.0	15.6	7.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	3	1	1
Dr. J. A. Hodges.....	Color'd	2,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	10	1	1
Goldsboro.....	White	2,800	5,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	1	1
J.E. Peterson, May'r.....	Color'd	2,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson.....	White	1,785	3,500	4.8	20.2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	5	6	1
Dr. A. Cheatham.....	Color'd	1,715	3,48	34.8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	2	3	21	4
New Bern.....	White	3,500	8,000	8.4	21.2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	1	2	18	7	1
S. Fulcher, City Cl'r.....	Color'd	4,500	48.0	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	1	1	1	1	2	1	1	1
Oxford.....	White	1,600	3,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. J. B. Williams.....	Color'd	1,700	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Raleigh.....	White	8,000	15,000	8.4	16.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	1	6	22	1	1
Dr. Jas. McKee.....	Color'd	7,000	26.4	16.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	1	1	1	1	16	5	2	4
Salisbury.....	White	2,800	4,500	20.4	1.80	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	1	1	2	5	1	2	7	1
Dr. I. J. Summerell.....	Color'd	1,700	13.2	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	1	1	1	1	2	1	1	1
Tarboro.....	White	1,300	2,500	8.4	9.6	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	1	2	1
Dr. J. M. Baker.....	Color'd	1,200	9.6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	1	1	1
Washington.....	White	2,400	4,000	0.0	0.0	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. S. T. Nicholson.....	Color'd	1,600	0.0	0.0	0.0	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	1	2	1	2	5	1	1
Wilmington.....	White	9,000	23,000	16.8	14.4	2	.....	1	2	1	2	1	2	1	2	6	1	1	1	1	13	29	3	8
Dr. F. W. Potter.....	Color'd	14,000	13.2	14.4	2	2	1	2	2	1	2	1	2	1	2	6	1	1	1	1	16	2	1	1
Greensboro.....	White	4,000	6,000	6.0	1.2	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	1	1	1	1
Dr. R. W. Tate.....	Color'd	2,000	6,000	6.0	1.2	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	1	1	1	1
Statesville.....	White	.....	3,500	.....	13.2	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	2	4	1	1
Dr. M. W. Hill.....	Color'd	.....	3,500	.....	13.2	.....	.....	2	.....	.....	2	.....	2	.....	2	1	1	1	1	1	2	4	1	1
Wilson.....	White	2,000	3,500	12.0	13.2	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	2	4	1	1
Dr. N. Anderson.....	Color'd	1,500	17.6	.....	.....	.....	.....	2	.....	.....	2	.....	2	.....	2	1	1	1	1	1	2	4	1	1
Hillsboro.....	White	350	600	2.3	1.9	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	1	1	1	1
Dr. D. C. Parris.....	Color'd	250	.....	.....	.....	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	1	1	1	1
Monroe.....	White	1,900	2,200	6.0	11.8	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	1	2	1	1
Dr. W. C. Ramsay.....	Color'd	300	3.3	11.8	.....	.....	.....	1	.....	.....	1	.....	1	.....	1	1	1	1	1	1	1	1	1	1
Salem—S. W. Clinard, City Clerk.....	White	3,000	3,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spring Hope.....	White	152	193	0.0	0.0	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. G. W. Lewis.....	Color'd	41	.....	0.0	0.0	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burnsville.....	White	143	166	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Dr. J. L. Ray.....	Color'd	23	166	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Pittsboro.....	White	250	500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Dr. L. A. Hanks.....	Color'd	250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	1	2	1	1
Warrenton.....	White	1,050	2,000	10.8	12.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	2	1	1
Dr. P. J. Macon.....	Color'd	950	12.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	1	1	1
Total.....	110,301	2	4	1	1	1	10	4	5	2	6	84	4	10	133	133	37

a no report received. *b* no deaths.

ELISEA MITCHELL SCIENTIFIC SOCIETY,
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J. L. LUDLOW, C. E., Winston.

THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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Dr. H. T. Bahnsen Elected President.

Dr. H. T. Bahnsen, of Salem, has been elected President of the North Carolina Board of Health, succeeding Dr. J. W. Jones, of Tarboro.

A Disinfectant for Family Use.

There is no better or cheaper disinfectant for general use in and about the premises than chloride of lime, although it is occasionally objectionable in some places and to some persons on account of its odor. This quality should not lead any one to believe that the liberated chlorine, which has such a pungent smell, is in itself of any value as a disinfectant. It may do to cover up other odors, but that is not disinfection. A disinfectant must have the power to destroy minute forms of life, like the germs of disease, and to arrest certain organic and chemical processes, to be of any value. Many of the so-called disinfectants are simply

deodorants, that is, preparations which destroy or cover up odors, but do nothing more; hence, applied as a disinfectant, they are of little or no value.

Chloride of lime ought to be obtainable at any drug store at ten cents a pound, and in some places it can be bought for five cents. The best way to use it is in a solution, as follows:

Chloride of lime, one pound; water, three gallons. Mix.

This mixture makes a perfectly safe and efficient disinfectant, and may be freely used in vaults, sink-drains, cesspools, or wherever there is filth requiring a disinfectant. It is also equally valuable for use in disease, to disinfect all matters coming from the sick-room.

The cheapness of this valuable disinfectant should bring it into very general use. Disinfection should not for a moment be regarded as a substitute for cleanliness, but only as one means of securing greater cleanliness than could be obtained without it. Its use in the

sick-room is to destroy immediately all the disease-bearing material that is eliminated by the infected person. For use among the people generally, the chloride of lime solution is probably the best disinfectant that can be employed.—*The Sanitary Volunteer.*

Weather and Epidemics.

Occasionally epidemics are reported from many locations, and different causes are named as being responsible for them. We also note that in the report of scarlet and typhoid fevers, and other contagious diseases, the condition of the weather is frequently mentioned as the principal cause of the epidemic. In many of these cases those reporting the sickness and defining the cause fail to suggest any reason why neighboring communities in which the very same conditions of weather prevail are free from the prevalence of the diseases reported. Superstitions have always prevailed regarding the relation of the state of the weather to health, and to many other interests related to the fortunes of man. It is very probable that these superstitions, like many others, have followed down the generations and yet exert some influence, however unconscious we may be of any trace of their existence. If, however, a close investigation were made, it would probably be found that the weather has not so much to do with these epidemics as do the local conditions which may only await certain states of the weather for the development of the virulence from which diseases result. Frost may prevent the decay of matter from which poisons emanate in milder weather. Poison vapors may be solidified and made harmless until warmth liberates them and supplies the conditions under which they cause disease. Dampness may, under a certain condition of things, be instrumental in producing results favorable to the production of disease. The state of the weather will be found often, in its relation to health, to depend on conditions that are removable to a sufficient extent to make disease avoidable. There is need for

some agency that will render all conditions naturally existing, or existing by negligence, harmless of the kind of weather. The more carefully should this agency be employed when the state of the weather is known to be such as to demand the most strict sanitary precautions. While health officers cannot regulate the weather, it is their business to preserve such sanitary conditions that the most unfavorable and unseasonable weather will produce the least possible harm. They cannot reckon on seasonable weather at all times, and should be prepared for the worst. It is not sufficient to state that, under certain states of the weather, this or that town or community would be free from epidemics; but the point of interest is the maintenance of such conditions as will promote health in all seasons. If sanitary knowledge and the science of preventive medicine are to be upset at every whim of the seasons, and the idle winds are to coquet with health, there is something wrong somewhere, and our boasted progress in this direction must be an illusion. It should not become popular to ascribe the cause of sickness to the weather, for such an excuse would be too convenient.—*Sanitary News.*

The Necessity of Thorough Ventilation.

If a single ounce of cotton be burned in a room, it will so completely saturate the chamber with smoke that one can hardly breathe, although there is but a single ounce of foreign matter in the air. Should an ounce of cotton be burned every half hour during the night, the air would be kept continually saturated with smoke, unless there should be an open door or window for it to escape. But the sixteen ounces of smoke thus formed by the cotton burning are far less poisonous than the sixteen ounces of exhalations from the lungs and bodies of two persons who have each lost a pound in weight during the eight hours of sleeping; for while the dry smoke is mainly taken into the lungs, the damp odors from the body are again absorbed into the lungs as well.

as into the pores of the skin. A little more thoughtfulness would impress upon every one the importance and necessity of having sleeping-rooms well ventilated. Air should be admitted not only during the day, but whilst we are asleep. Another very important item of the health of our beds is, that every morning after getting up, the sheets, blankets and other coverings should not be rearranged without being left about for a few hours. It would be a great advantage if they could be aired for that space of time. This may seem a trifle, but trifles make up the sum of our health, comfort and existence.—*Herald of Health.*

How to Distinguish Good Meat.

Prof. V. C. Vaughan, of the Michigan State Board of Health, says: Good beef has a reddish-brown color and contains no clots of blood. Well nourished beeves furnish a flesh which while raw is marked with spots of white fat; it is firm and compact. Old, lean animals furnish a flesh which is tough, dry and dark; the fat is yellow. Veal is slightly reddish and has tender white fibers. The fat is not distributed through the lean as in beef. The same is true of mutton. In well nourished animals white fat accumulates along the borders of the muscles. Pork is rose-red and has fat distributed through the muscle. The lard is white and lies in heavy deposits under the skin. Good beef is not of a pale pink color, and such a color indicates that the animal was diseased. Good beef does not have a dark purple hue, for this color is evidence that the animal has not been slaughtered, but died with the blood in its body, or has suffered from acute febrile affection. Good beef has no, or but little, odor; or, if any odor is perceptible, it is not disagreeable. In judging as to the odor of meat pass a clean knife, which has been dipped in hot water, through it and examine subsequently as to the odor of the knife. Tainted meat often gives off a plainly perceptible and disagreeable odor while being cooked. Good meat is elastic to the touch. Meat that is wet

and flabby should be discarded. It should not become gelatinous after being kept in a cool place for two days, but should remain dry on the surface and firm to the touch.—*The Monthly Bulletin, R. I. Board of Health.*

Delinquent Superintendents.

We would respectfully call the attention of delinquent superintendents of health to section 8 of The Code, relating to the State Board of Health, and request their earnest consideration of the same:

"Sec. 8. Monthly returns of vital statistics upon a plan to be made by the county superintendent of health, and a failure to report by the tenth of the month of the preceding month shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health."

The Necessity for Vaccination.

There appears to have been but little done lately by the county superintendents of health, and physicians generally, in the matter of vaccination. We would remind the profession that it is before the actual outbreak of small-pox that vaccination can be best performed. Do not wait until it becomes epidemic, and then hurriedly try to make up for lost opportunities. It is tolerably sure that small-pox will become wide-spread this season. There are two widely separated *foci* of the disease already known, and the rapidity of inter-communication in this country is so great that we cannot reasonably expect long exemption. Vaccination should be urged at once. We have been applied to for free vaccine virus, but as there is no appropriation by the State for vaccine, we cannot supply any gratis, but a supply of reliable virus can be obtained promptly from

this office, at the lowest rates, upon the application of superintendents of health and others.

The Secretary would impress upon the superintendents of health the necessity of promptly reporting all cases of small-pox at the earliest practical moment, not waiting for the regular monthly report.

*Summary of Mortuary Statistics from 21 towns
for the Month of May, 1889.*

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Total population	66,051	55,049	121,000
Total deaths	66	81	147
Temporary annual death-rate per 1,000	12.0	16.8	14.4
Deaths under 5 years	14	27	41

<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	1	0	1
Malarial fever	1	3	4
Whooping-cough	0	2	2
Measles	2	1	3
Pneumonia	6	6	12
Consumption	6	14	20
Brain diseases	3	2	5
Heart diseases	2	6	8
Neurotic diseases	3	1	4
Diarrhoeal diseases	14	9	23
All other diseases	25	30	55
Accident and violence	0	1	1
Suicide	0	2	2
Still-born	3	4	7
Under 5 years	14	27	41
Total	66	81	147

Varioloid.

A case of varioloid has been reported from Galesburg, Illinois. The patient had recently arrived from Burlington, Iowa. Every precaution has been taken by the local authorities to prevent spread.

Review of Diseases reported by Counties for the Month of May, 1889.

Bilious remittent fever was reported from Transylvania.

Blind staggers among horses was reported from Union.

*Chicken cholera prevailed in Alleghany, Orange and Warren.

*Cerebro-spinal meningitis was reported from Washington, 6 cases.

Cholera-infantum was reported from Yancey.

Cholera-morbus was reported from Union and Yancey.

Distemper among horses was reported from Jones and Orange.

Diarrhoea was prevalent in all sections of the State, as follows: Beaufort, Caswell, Chowan, Columbus, Cumberland, Davidson, Duplin, Edgecombe, Forsyth, Guilford, Lincoln, McDowell, Macon, Martin, Nash, New Hanover, Robeson, Rowan, Sampson, Swain, Vance and Yancey.

Diphtheria was reported from Richmond and Rockingham.

Dysentery was by far the leading disease, as usual in this season, 40 counties reporting it as prevalent, to-wit: Alamance, Alexander, Alleghany, Brunswick, Bertie, Caswell, Catawba, Cherokee, Chowan, Cleveland, Craven, Davidson, Duplin, Franklin, Edgecombe, Forsyth, Gaston, Greene, Guilford, Granville, Jones, McDowell, Macon, Martin, Nash, New Hanover, Northampton, Onslow, Pender, Randolph, Richmond, Rockingham, Rowan, Rutherford, Sampson, Union, Vance, Washington, Wake and Wilson.

Dropsy was reported from Cherokee and Caswell.

*Erysipelas was reported from Onslow.

Flux was reported from Montgomery.

*Hog cholera was reported from Columbus, Pender and Sampson.

Intermittent fever was prevalent in Chowan, Duplin, Forsyth, Jones, Nash and Orange.

Mumps was reported from Alamance, Chat-ham, Cumberland, Henderson, Nash, Rowan and Sampson.

Malarial fever was prevalent in Beaufort, Caswell, Greene, Johnston, Granville, Orange and Sampson.

*Measles was reported from Buncombe, Caswell, Cumberland, Forsyth, Guilford, Randolph, Richmond, Robeson, Union and Yancey.

*Pneumonia was prevalent in Alleghany,

Caswell, Henderson, Madison, Pender, Transylvania and Yancey.

Remittent fever was reported from Duplin, Nash and Orange.

*Scarlatina was reported from Franklin, 2 cases, but reported as not having spread or infected others, and 5 cases from Wayne.

*Typhoid fever was prevalent in the western counties. The number of cases reported are as follows: Cabarrus, 13; Henderson, 2; Jackson, 20; Lincoln, could not give number; McDowell, 1; Rowan, 2; and Watauga, 2. The central counties reporting this disease were: Chatham, 3; Johnston, 2; Randolph, 6; Granville, a few isolated cases, and Vance, 2; and one eastern county, namely, Columbus, 2 cases. Last month only four counties reported typhoid fever. The above shows typhoid to be on the increase.

Whooping-cough was prevalent in Beaufort, Duplin, Jackson, Macon, Onslow, Orange, Rockingham and Union.

NOTE.—All diseases marked thus * are considered as dangerous to the public health and should be reported promptly.

Summary of Reports Received from 64 Counties for the Month of May, 1889.

Alamance.—Dr. George W. Long, Graham. The sanitary condition of the county is good, but mumps and dysentery have prevailed to a limited extent. Domestic animals comparatively free from disease, so far as I can learn. The sanitary condition of the poor-house is good. If there were an additional room or two erected the inmates could be made more comfortable. Its 25 inmates are supplied with good food and water. The sanitary condition of the jail is as good as the building will permit. Some improvements ought to be made, however, before winter, especially in the manner of heating. Its four inmates are furnished with good food and water, but only one can read and write.

Alexander.—Dr. H. McD. Little, Taylorsville. The general sanitary condition of the county is very good, not very much sickness of any kind reported, except a few cases of sporadic dysentery. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is good. The two new rooms enlarging the capacity of the poor-house are not completed as yet. Its seven inmates are supplied with good food and well-water, but none give evidence of successful vaccination, nor can any of them either read or write.

Alleghany.—Dr. George Daughton, Sparta. I have a few cases of pneumonia to report. Dysentery has prevailed to a considerable extent, but no deaths have resulted from this disease, so far as I can learn. There has been an epidemic of chicken cholera. The sanitary condition of the jail is only tolerably good; its two prisoners are given sufficient food and well-water, and one gives evidence of successful vaccination and one can read and write. The sanitary condition of the poor-house is good. Its one inmate is furnished sufficient food and spring-water.

Ashe.—Dr. J. W. Colvard, Jefferson. No report received.

Anson.—Dr. E. F. Ashe, Wadesboro. No report received.

Beaufort.—Dr. W. A. Blount, Washington. We have some whooping-cough, but it has not prevailed to any great extent in any portion of the county. There has been a slight increase of sickness over the past month, principally diarrhoeal and malarial diseases. There has been no epidemic among domestic animals. The sanitary condition of the jail has not improved. The authorities will probably remodel the present one, or build a new one in the near future. Its fourteen inmates are supplied with good food and water. Two give evidence of successful vaccination.

Bertie.—Dr. H. V. Dunston, Windsor. Dysentery has prevailed in many portions of the county. There has been no epidemic among

domestic animals. All the public buildings are being improved.

Bladen.—Has no Board of Health.

Brunswick.—Dr. D. B. McNeill, Supply. The sanitary condition of the county is fair, but a few cases of dysentery have occurred in the southern section of the county. There has been no change in the sanitary condition of the public buildings since last report.

Buncombe.—Dr. H. B. Weaver, Asheville. The sanitary condition of the county is fair. There has been very little sickness with the exception of measles. There has been no epidemic of any kind among domestic animals. The public buildings are in fair sanitary condition, and efforts are making to improve the same.

Burke.—Dr. J. L. Laxton, Morganton. No report received.

Cabarrus.—Dr. R. S. Young, Concord. The general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good. The five prisoners confined in jail are given good food and water. None give evidence of successful vaccination, nor can any read or write. The twenty inmates of the poor-house are supplied with good food and water, twelve give evidence of successful vaccination, and fourteen of them can read and write.

Caldwell.—Dr. Robert L. Beall, Lenoir. The county has never been in a healthier condition at this season of the year. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good. No improvement at the poor-house; its eight inmates are furnished good food and water. None give evidence of successful vaccination, and two can read and write. Slight repairs have been made on the jail; its one occupant is given good food and water, does not give evidence of successful vaccination, cannot read or write.

Camden.—Dr. Ed. B. Ferebee, Bellcross. No report received.

Carteret.—Dr. M. F. Arendell, Morehead City. The general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. We are improving the sanitary condition of the public buildings, though very good at present. There is but one prisoner in jail and he is furnished with good food and ample water; does not give evidence of successful vaccination nor able to read and write.

Caswell.—Dr. R. H. Williamson, Yanceyville. The sanitary condition of the county is good. We have had many cases of diarrhoea and dysentery, one of cystitis, a few of pneumonia, twelve of measles and six of malarial fever. The physicians of this county have been very prompt for the past few months in sending in their reports. The general sanitary condition of the public buildings is very good. We have one insane woman in jail whom I will send to Morganton as soon as I hear from the Superintendent. One death at poor-house of dropsy.

Catawba.—Dr. J. M. McCorkle, Newton. The sanitary condition of the county is good, but dysentery of a mild character has prevailed in some portions. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good. The nine prisoners confined in jail are supplied with good food and water, three of them giving evidence of successful vaccination, and four can read and write. The thirty-two inmates of the poor-house are furnished with good food and water, eight of them giving evidence of successful vaccination, and nine can read and write.

Chatham.—Dr. L. A. Hanks, Pittsboro. The general sanitary condition of the county is good; the health of the county is fairly good, with the exception of mumps, which is very prevalent in several portions. There has been an epidemic of chicken cholera. The sanitary condition of the public buildings is good. The four prisoners confined in jail are given good food and good limestone water; two give evi-

dence of successful vaccination, and two can read and write.

Cherokee.—Dr. J. T. Abernathy, Murphy. The health of the people of this county continues good, but two deaths having occurred this month, one from dropsy, the other from dysentery and old age. The sanitary condition of the public buildings is fair, that of the streets, alleys, wells, etc., may be improved, 'tis hoped at an early day. We now have a new council and mayor, who are thoroughly awakened to the great necessity of cleanliness. The four prisoners confined in jail are supplied with wholesome food and freestone water, one of them giving evidence of successful vaccination, and three can read and write.

Chowan.—Dr. R. W. Winborne, Barnitz. The sanitary condition of the county is not extraordinarily good, but we hope to improve it soon; but diarrhoea, dysentery and intermittent fever have prevailed in mild form in all portions of the county. There has been no epidemic of any kind among domestic animals. The poor-house is in very good sanitary condition, is well cleaned and is being whitewashed. Its six inmates are given nutritious food and well-water, but none give evidence of successful vaccination, and none can read or write. The jail is in a tolerably good condition; hope it will be improved soon; its three prisoners are given fair food and well-water.

Cleveland.—Dr. J. C. Gidney, Shelby. The health of the county is very good, only a few cases of dysentery in a mild form having been reported. There has been no epidemic among domestic animals. The county authorities are making a move to build a new jail, or enlarge the old one. The sanitary condition of the jail is not good on account of its being too much crowded. The fourteen prisoners confined in jail are given good food and water; four can read and write. The forty-four inmates of the poor-house are supplied with good food and water, and twelve of them can read and write.

Clay.—Has no Board of Health.

Columbus.—Dr. Isaac Jackson, Whiteville. The general sanitary condition of the county is good, but diarrhoea of a mild type has prevailed in many sections of this county, but no fatal cases. I have also two cases of typhoid fever in my practice, both recovered. There has been an epidemic of hog-cholera in some sections of the county. The sanitary condition of the public buildings is very good; any needed repairs are looked after immediately. The five prisoners confined in jail are given plenty of food and water. The six inmates of the poor-house are furnished with good food and water.

Craven.—Dr. Leicester Duffy, Newbern. The sanitary condition of the county, as far as I have been able to ascertain, is very good; but dysentery has prevailed in some localities, but mostly in a mild form. There seems to be an epidemic of some kind among horses, the exact nature of which I have been unable to determine. The jail and poor-house are well kept, have recently been cleaned and whitewashed, and are free from odor. The inmates are furnished with good food and water. We have, I am sorry to say, no house of correction.

Cumberland.—Dr. James A. Hodges, Fayetteville. Diarrhoeal and dysenteric diseases have prevailed in all sections; the percentage of deaths, however, has been small. A few cases of mumps and measles have been reported. The public buildings are neat and kept cleanly, a great improvement in this direction. The eight prisoners confined in jail are given meat and vegetable diet and well-water; six of them give evidence of successful vaccination, and four can read and write. The sixteen inmates of the poor-house are also supplied with meat and vegetable diet. Ten give evidence of successful vaccination, and nine can read and write.

Currituck.—Dr. F. W. Ritter, Moyock. I have no report to make for May.

Dare.—Has no Board of Health.

Davidson.—Dr. R. L. Payne, Jr., Lexington. The sanitary condition of the county is

as good as usual at this season, but could be greatly improved by extensively ditching the lowlands. Dysentery and diarrhoea have prevailed in northern and western portions to a large extent, and scattered cases have occurred all over the county. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is tolerably good. It seems almost impossible to arouse the authorities to the necessity of action. For two months I have tried to have the jail and poor-house disinfected and whitewashed, and so far it has been all in vain. The seven prisoners confined in jail are given fair food and water; the twenty-four inmates of the poor-house are furnished with good food and water, none giving evidence of successful vaccination in either institution, and only five in the latter can read and write.

Davie.—Has no Board of Health.

Duplin.—Dr. James W. Blount, Kenansville. The general sanitary condition of the county is good, but diarrhoea and dysentery have been very prevalent during the month, several cases of intermittent and remittent fever have been reported, and whooping-cough has prevailed in some sections. The general sanitary condition of the public buildings has been improved, and hope soon to have them very much better, as I am getting the county officers somewhat interested in the matter.

Durham.—Dr. N. M. Johnson, Durham. The sanitary condition of the county and its health has been very good for May. There has been no epidemic among domestic animals. Public buildings are in healthful condition. The five prisoners confined in jail are supplied with wholesome food and water from the reservoir; three of them can read and write; the thirteen prisoners confined in the house of correction are given wholesome food and well-water; four of them can read and write; the fifteen inmates of the poor-house are furnished with good food and well-water, but only two can read and write. No vaccination data furnished in report.

Edgecombe.—Dr. Julian M. Baker, Tarboro. The sanitary condition of the county is not as good as usual, owing to inundation of low lands; diarrhoea and dysentery have prevailed in all portions. The six persons confined in jail are given good food and water, as are also the twenty-nine inmates of the poor-house.

Forsyth.—Dr. D. N. Dalton, Jr., Winston. The general sanitary condition of the county is good, but have had a mild epidemic of measles, dysentery and diarrhoea among children, and also some mild cases of intermittent fever. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is good. The twenty-one prisoners confined in jail are given good and plentiful food and water, six of them give evidence of successful vaccination, and five can read and write; the eighteen inmates of the poor-house are also furnished with good and plenty of food and water, three of these giving evidence of successful vaccination, but only two can read and write.

Franklin.—Dr. E. S. Foster, Louisburg. There is, as far as I can learn, but little sickness prevailing in this county, except dysentery, which is quite general. There have been two cases of scarlatina, but they did not spread. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good; that of the jail is as good as can be unless remodeled and changes made; its one prisoner is given spring-water and sufficient food of good quality. The nineteen inmates of the poor-house are given well-water and good and sufficient food; all of them give evidence of successful vaccination, while only one can read and write.

Gaston.—Dr. E. B. Holland, Dallas. The sanitary condition of the county is good; there has been but little sickness during the month, though dysentery in a mild form has prevailed in the eastern and central portions. There has been no epidemic among domestic animals. The nine prisoners confined in jail are given good food and water; none give any sign of

successful vaccination, and three can read and write. The sixteen inmates of the poor-house are supplied with good food and water, three show signs of successful vaccination, and five can read and write.

Gates.—Has no Board of Health.

Graham.—Has no Board of Health.

Granville.—Dr. J. M. Hays, Oxford. Dysentery has prevailed largely in all parts of the county; a few isolated cases of typhoid fever have occurred. Malarial diseases have been less usual at this season. The poor-house and jail are both in excellent sanitary condition. The five persons confined in jail are given good food and water, one only giving evidence of successful vaccination, and three can read and write. The twenty-one inmates of the poor-house are supplied with good food and water, ten of them show signs of successful vaccination, and seven can read and write.

Greene.—Dr. W. C. Galloway, Snow Hill. Dysentery prevailing throughout the county and a number of cases of malarial fever. The public buildings are in very good sanitary condition. The three prisoners confined in jail are given food and water sufficient in quantity and quality. The eleven inmates of the poor-house are also given food and water sufficient in quality and quantity. Five give evidence of successful vaccination and one can read and write.

Guilford.—Dr. R. W. Tate, Greensboro. The general sanitary condition of the county has been good, as far as I have heard. There has been but little sickness and few deaths. Measles, dysentery and diarrhoea have prevailed in portions of the county, but of a mild type. There has been no epidemic among domestic animals. The general sanitary condition of the poor-house is very good; its twenty-six inmates are supplied with good food and water; thirteen of them give evidence of successful vaccination, and eleven can read and write. The sanitary condition of the jail is as good as it could be under existing circumstances; its sixteen prisoners are given good food and water,

six of them showing signs of successful vaccination, and nine can read and write.

Halifax.—Has no Board of Health.

Harnett.—Has no Board of Health.

Haywood.—Dr. R. L. Allen, Waynesville. No report received.

Henderson.—Dr. L. L. Johnston, Angeline. The sanitary condition of the county is very good, but mumps have been reported from different sections; one death from pneumonia, and two cases of typhoid fever, but of a mild form. There has been no epidemic of any form among domestic animals. The sanitary condition of the jail and poor-house is very good. Arrangements are being made for the erection of a new jail.

Hertford.—Has no Board of Health.

Hyde.—Dr. Edward Clark, Middleton. No report received.

Iredell.—Dr. M. H. Hill, Statesville. The sanitary condition of the county during the month of May has been unusually good; very little sickness of any kind, so far as I can learn. In the mortuary report the aggregate years of the lives of three of the sum of deaths reported was 248 years. There has been no epidemic of any character among domestic animals. The poor-house buildings are clean, neat and well ventilated. Not so much can be said truthfully of the jail, but it is in fair condition, considering that the construction is very faulty. The food furnished the inmates of the jail and poor-house is good and substantial.

Jackson.—Dr. J. M. Candler, Dillsboro. The sanitary condition of the county is not good. I will investigate and make a special report soon. Typhoid fever has prevailed in the southern part of the county. There has been no epidemic among domestic animals. The sanitary condition of the jail is good and will be improved by whitewashing with lime; its one prisoner is given good food and water, but does not give any evidence of successful vaccination; however, he can read and write. The sanitary condition of the poor-house is

good; its two inmates are supplied with good food and water.

Johnston.—Dr. L. L. Sasser, Smithfield. The sanitary condition of the county is very good, but malarial and gastro-intestinal troubles have prevailed in all portions. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good, but no efforts are being made at improvement. The four prisoners confined in the jail are given sufficient food and water, one gives evidence of successful vaccination and two can read and write. The sixteen inmates of the poor-house are supplied with abundant water and sufficient food, five giving signs of successful vaccination, and six can read and write.

Jones.—Dr. Charles B. Woodley, Trenton. The sanitary condition is good, so far as can be learned, but intermittent fever and dysentery have prevailed in some portions. There has been and still continues an epidemic of distemper among horses. The sanitary condition of the public buildings is fair; inmates of poor-house have good wholesome food and water.

Lenoir.—Has no Board of Health.

Lincoln.—Dr. W. L. Crouse, Lincolnton. The health of the county is good, but have some diarrhoeal troubles and typhoid fever, but have no report of them from physicians, hence I cannot give number of cases. Dr. Hoover, of Lowesville, is the only physician reporting for May. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the jail and poor-house is good, except that both are too small; the poor-house is badly crowded. There are no efforts at improvement or for enlargement. The seven prisoners confined in jail are given plain food and well-water; five can read and write. The thirty inmates of the poor-house are supplied with well-water and plain food, and five can read and write.

Macon.—Dr. J. M. Lyle, Franklin. There is very little sickness of a serious character in

this county; there has been, however, a good deal of diarrhoea and a few cases of dysentery, and about twelve cases of whooping-cough. There has been no epidemic among domestic animals. The sanitary condition of public buildings is good.

McDowell.—Dr. J. H. Gilkey, Marion. Dysentery and diarrhoea have prevailed pretty extensively in some portions, and one case of typhoid fever; with these exceptions, the health and general sanitary condition of the county have been unusually good. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is very good. The three prisoners confined in jail are given good food and water, one giving evidence of successful vaccination, and all three are able to read and write. The six inmates of the poor-house are given good food and water, two of them showing signs of successful vaccination, and one can read and write.

Madison.—Dr. James K. Hardwick, Marshall. The sanitary condition of the county is very good, only a few cases of pneumonia of a mild type reported. The sanitary condition of the public buildings is very good. The two inmates of the jail are furnished with good food and water; none give evidence of successful vaccination, nor are they able to read and write. The six inmates of the poor-house are given good food and water; neither of these show any signs of successful vaccination, nor can any of them read or write.

Martin.—Dr. W. H. Harrell, Williamston. The sanitary condition of the county is not good, on account of rains filling wells with surface water. The recent freshets are also leaving material for malarial fever. Dysentery and diarrhoea have prevailed in several portions; there was one case of typhoid fever reported. There has been no epidemic of any kind among domestic animals. The three prisoners confined in jail are given good food and water, one giving evidence of successful vaccination and two are able to read and

write. The eleven inmates of the poor-house are supplied with good food and water, two of these giving signs of good vaccination, and two can read and write.

Mecklenburg.—Has no Board of Health.

Mitchell.—Has no Board of Health.

Montgomery.—Dr. W. A. Simmons, Troy. There have been two deaths from flux among children, but none among grown people, though it has been common among all. There has been no epidemic among domestic animals. The public buildings all in good sanitary condition, and no effort at improvement.

Moore.—Has no Board of Health.

Nash.—Dr. G. W. Lewis, Spring Hope. The sanitary condition of the county is good, but mumps, diarrhoea, remittent and intermittent fever have prevailed in all portions. There has been no epidemic among domestic animals. The inmates of the poor-house are well cared for; there are no prisoners confined in jail. There is not as much sickness in this month as in the same month last year.

New Hanover.—Dr. F. W. Potter, Wilmington. The health of the county is good; a few cases of diarrhoea and dysentery in suburban portions reported; very few deaths of any kind during the month in county townships. There has been no epidemic of any kind among domestic animals. The jail is in good sanitary condition; one case of syphilis and one of gonorrhoea treated; its eighteen prisoners are given water *ad libitum* and one pound of bread and one pound of meat daily; twelve give evidence of successful vaccination, and ten can read and write. No one sick in house of correction; it is clean and whitewashed; its three prisoners are supplied with water *ad libitum* and one pound each of bread and meat per day; two show signs of good vaccination, and two can read and write. The poor-house is well ventilated, scoured and whitewashed; one case of diarrhea and one of fever treated; its twenty-one inmates are supplied with water *ad libitum* and one pound each of bread and

meat; fifteen of these give evidence of successful vaccination, and nine can read.

Northampton.—Dr. H. W. Lewis, Jackson. The general sanitary condition of the county is good, but dysentery has been epidemic. There has been no epidemic of disease among domestic animals. The sanitary condition of the public buildings is good. The thirty-five inmates of the poor-house are given good water and fair food; fifteen of them giving evidence of successful vaccination, and ten can read and write.

Onslow—Dr. J. L. Nicholson, Richlands. May was more than ordinarily sickly; chief trouble, an epidemic of dysentery in well-nigh every section of the county. Two or three cases of erysipelas reported; whooping-cough, for many months an epidemic in the county, has not entirely quit us yet, but few cases are known to your reporter. Jail and poor-house are kept in cleanly and healthy condition, the food and water in each case being fairly good. One prisoner in jail (on account of insanity). Six inmates in poor-house; two of them were vaccinated many years ago, four have never been vaccinated, and two can read and write.

Orange.—Dr. D. C. Parrish, Hillsboro. The sanitary condition of this county is excellent and the health of the people is better than usual at this season, but diseases peculiar to this time of the year have occurred in nearly all parts of the county, but in a mild form and not of sufficient frequency to be epidemic; there were nineteen deaths reported for the county of the following diseases: diarrhoea, dysentery, cholera-infantum, influenza, pneumonia, bronchitis, intermittent and remittent fevers, (which latter have prevailed in the northern and western portions), typhoid fever, rheumatism, scrofula, cerebro-spinal meningitis and puerperal peritonitis. Chicken-cholera and distemper among horses have occurred sporadically this month. The sanitary condition of the poor-house is excellent; floors have all been well scoured and the walls whitewashed; the ventilation and drainage are both good; its

thirty-two inmates are given soft spring-water and wholesome, substantial and varied food; twelve of them give evidence of successful vaccination, and fourteen can read and write. The sanitary condition of the jail, guard-house and other public buildings, both in town and county, is good; the four prisoners confined in jail are furnished soft well-water and substantial, wholesome and varied food, one only showing any signs of successful vaccination, and two are able to read and write.

Pamlico.—Has no Board of Health.

Pasquotank.—Has no Board of Health.

Pender.—Dr. S. S. Satchwell, Burgaw. There has been very little sickness indeed in Pender during the month of May, although the general sanitary condition of the county is defective. Scattering cases of bowel disease among children have existed, a few cases of catarrhal fever and pneumonia. There has been an epidemic of hog-cholera in some sections of the county. The general sanitary condition of the public buildings is fair, except that the jail and court-house leaks in heavy rains. I am demanding cleanliness and good ventilation in all of the public institutions, and urge the same in private families. The three prisoners confined in jail receive good food and water, two of them giving evidence of successful vaccination, and two can read and write. The seven inmates of the poor-house are given good food and water; three of them show signs of successful vaccination, and three can read and write.

Perquimans.—Has no Board of Health.

Person.—Dr. C. G. Nichols, Roxboro. No report received for May.

Pitt.—Dr. F. W. Brown, Greenville. No report received this year.

Polk.—Has no Board of Health.

Randolph.—Dr. J. W. Long, Randleman. The sanitary condition of our county is fairly good; no general epidemic has prevailed, except a very mild form of dysentery, taking the form of entero-colitis among children, resulting in an occasional death. Measles have existed

around Liberty, and a few cases near here. These cases near here have been very mild. Measles should be classed with "*diseases dangerous to public health*," viz.: small-pox, scarlet fever, etc. Have not heard of over six cases of typhoid fever. The jail contains eleven prisoners; nine have been vaccinated, two have not. During May three slight cases of dysentery among them; one case of syphilis. Five of the prisoners are white and six are colored. They receive plenty of wholesome food and water. Will report next month the kind of jail and the condition in which it is kept. The poor-house has twenty-three inmates; three have been vaccinated, eighteen have not; nine can read and write, fourteen cannot. All are well fed. Little sickness among them, except chronic troubles peculiar to old age.

Richmond.—Dr. W. W. Covington, Rockingham. The sanitary condition of the county is good, with the exception of an epidemic of dysentery, which in some sections seems to be very malignant, being complicated with measles. The sanitary condition of the public buildings is good, with the exception of the cells at the poor-house for the confinement of the lunatics, to which I have frequently had reference, and yet there seems to be no effort at improvement. The eight persons confined in jail are given good food and water. One gives evidence of successful vaccination, and two can read and write. The twelve inmates of the poor-house are furnished good food and water; two give signs of successful vaccination, and two can read and write.

Robeson.—Dr. R. F. Lewis, Lumberton. The sanitary condition of the county is very good, some bowel affections prevailing, also a few cases of measles. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is fair.

Rockingham.—Dr. T. E. Balsley, Reidsville. Good health is general all over the county, but whooping-cough and dysentery have prevailed in Reidsville and immediate vi-

cinity. The sanitary condition of the poor-house is good; its fifty-five inmates are supplied with well-water and poor food; twenty-two can read and write. The sanitary condition of the jail is bad; its fourteen prisoners receive three gallons daily of well-water and coarse but good food; nine of them can read and write.

Rowan.—Dr. J. J. Summerell, Salisbury. While there have been some bowel diseases in many neighborhoods, it does not seem to arise from any want of sanitation; we have had no freshets and the weather has been mild and agreeable. During the month of May we had four weeks without rain, and frost on one or two mornings, doing no damage, however. The great hail-storm came on the 26th, doing great damage to crops and some to the buildings in Salisbury and the district through which it passed. Generally in May we have almost always some fatality among children from cholera-infantum and kindred complaints, but this year during May there has been no death from such diseases, though they have been common. Dysentery has prevailed in the county, and in certain neighborhoods near the river and large creeks there has been considerable fatality, as in some places it has even been epidemic. Drs. Poole and Ramsay are the only physicians reporting for May, as follows:

Dr. C. M. Poole, Craven. Dysentery is epidemic, but I am succeeding very well; some have died; treated twenty-nine cases of dysentery and one of pneumonia.

Dr. J. G. Ramsay, Mt. Vernon. There is some cholera-morbus among adults, and ileo-colitis among children, now and then a little ague, two cases of typhoid or "African" fever, both fatal, and a few cases of mumps.

There has been no epidemic among domestic animals that I have heard of. Our public buildings are in good sanitary condition. The fifteen prisoners confined in jail are given plenty of good water and plain and sufficient food, three of them giving evidence of successful vaccination, and five can read and write. The sixteen inmates of the poor-house obtain

unlimited and good well-water, and are furnished with sufficient and plain food; two of them show signs of vaccination, and two can read and write.

Rutherford.—Dr. E. B. Harris, Rutherfordton. The county generally is very healthy indeed, but dysentery has prevailed in different portions. The public buildings are very good and in good sanitary condition, but are too small for the demand on them at present. The twenty prisoners confined in jail are given good food and water; the thirty-five inmates of the poor-house are supplied with good food and water, ten giving evidence of successful vaccination, and six can read and write.

Sampson.—Dr. John A. Stevens, Clinton. The general sanitary condition of the county is as good as could be expected for this season of the year. There are a few cases of malaria, diarrhoea and dysentery, also several cases of whooping-cough and mumps. There has been an epidemic of hog-cholera. The general sanitary condition of the jail is not good, its one prisoner is given good well water and good and sufficient food, but does not give any signs of successful vaccination, and can neither read nor write. The poor-house is very well kept and its general sanitary condition is good, its twenty-two inmates are supplied with very good well-water plentifully, and good and abundant food, one only can read and write, and one gives signs of successful vaccination.

Stanly.—Dr. R. Anderson, Albemarle. The sanitary condition of the county is excellent; no sickness of any consequence. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is only moderate, though there is no sickness among prisoners or paupers; no effort at improvement. The three prisoners confined in jail are given good food and water; none give evidence of successful vaccination, and two can read and write; the eleven inmates of the poor-house are supplied with good food and water; none of them give any sign of successful vaccination, and only one can read and write.

Stokes.—Has no Board of Health.

Surry.—Has no Board of Health.

Swain.—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county is good; no sickness during the month except a few cases of diarrhoea. There has been no epidemic of any kind among domestic animals. The general sanitary condition of public buildings is as good as can be; there are no prisoners in jail.

Transylvania.—Dr. D. H. Farmer, Brevard. The sanitary condition of the county has not been so good as the previous month, as we have had a good many cases of bilious remittent fever; as yet no deaths; a few cases of pneumonia and one death. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings not good, and no efforts at improvement, so far as jail and court-house are concerned; the poor-house is still in excellent condition; the condition of the court-house and jail have been reported monthly to the board of county commissioners.

Tyrrell.—Dr. A. B. Alexander, Columbia. Very little sickness here. The sanitary condition of the public buildings is good. There are no prisoners confined in jail; the two inmates of the poor-house obtain sufficient food and water, but none give evidence of successful vaccination, and none can read or write.

Union—Dr. W. C. Ramsay, Monroe. Measles and whooping-cough have about subsided; dysentery has generally prevailed—ten or twelve deaths reported therefrom; otherwise, no sickness of importance. There has been an epidemic of blind-staggers among horses. Monroe reports but one death for May, and that was an aged lady; cause of death, dysentery. The poor-house is in good sanitary condition; it has fifteen inmates. That of the jail is indifferent; think a new jail will be built in the near future, as "jail-breaks" are becoming frequent; it has at present seven prisoners.

Vance.—Dr. A. Cheatham, Henderson. The sanitary condition of the county is good, with

the exception of diarrhoea and dysentery. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is good. The two prisoners confined in jail are given plenty of good water and food—plenty as to quality and quantity; the same is true with the inmates of the poor-house.

Wake.—Dr. James McKee, Raleigh. The sanitary condition of the city and county is good, but dysentery and catarrhal diarrhoea have prevailed in nearly every portion of the county. There has been no epidemic of any kind among domestic animals. All of the public buildings are in good sanitary condition. The fifteen prisoners confined in jail, the sixty confined in the house of correction, and the fifty two inmates of the poor-house, all receive pure and abundant water and varied and abundant food.

Warren—Dr. P. J. Macon, Warrenton. The sanitary condition of this county is good. There was only one death in Warrenton; cause, scrofula. There has been an epidemic of chicken cholera. The public buildings are in excellent sanitary condition; they are being whitewashed inside and outside. The four prisoners confined in jail are given well-water and sufficient food; two give evidence of successful vaccination, and two can read and write. The twelve inmates of the poor-house are supplied with soft well-water and sufficient food, six of them giving evidence of successful vaccination, and only one can read and write.

Washington.—Dr. W. H. Ward, Plymouth. Dysentery almost an epidemic. There have been six or eight cases of cerebro-spinal meningitis. There has been no epidemic among domestic animals. There are ten inmates in the jail, four can read and write, and five give evidence of successful vaccination. There are also ten inmates in the poor-house, five of them give evidence of successful vaccination, and four can read and write. They all have an abundance of space; hygienic surroundings are good.

Watauga.—Dr. D. B. Council, Boone. The sanitary condition of the county is good in every way, with the exception of two cases of typhoid fever. There has been no epidemic among domestic animals. Sanitary condition of the poor-house is good; a new jail is being erected, and will be completed by the 1st of October.

Wayne.—Dr. James Spicer, Goldsboro. The general sanitary condition of the county is good, but have had five cases of scarlatina. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good. The seven prisoners confined in jail are given good food and water, four giving evidence of successful vaccination, and five can read and write. The fourteen inmates of the poor-house are also furnished with good food and water; five of

them show signs of successful vaccination and three can read and write.

Wilkes.—Dr. J. White, Wilkesboro. No report received for May.

Wilson.—Dr. N. Anderson, Wilson. Quite a number of cases of dysentery reported, generally of a mild type; otherwise the health of the county is excellent. The sanitary condition of the jail and poor-house is fine.

Yadkin.—Has no Board of Health.

Yancey.—Dr. J. L. Ray, Burnsville. The general sanitary condition of this county is excellent at present; no epidemic of any consequence has prevailed in any portion. There has been no epidemic of note among domestic animals. The sanitary condition of the jail is very good at present; its one prisoner receives plenty of well-water and of a good quality, and sufficient food; does not give evidence of successful vaccination, and can read and write.

Condition of Jails and Poor-houses by Counties for May, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	4	800	a	1	25	900	a	a
Alexander.....	2	1,874	0	1	7	634	0	0
Ashe.....								
Alleghany.....	2	800	1	1	1	1,000	a	a
Anson.....								
Beaufort.....	14	400	2	a	13	600	2	a
Bertie.....	2	810	0	a	9	648	a	a
Bladen.....								
Brunswick.....	5	832	a	a	10	1,100	a	a
Buncombe.....	30	700	a	24	34	800	a	20
Burke.....								
Cabarrus.....	5	1,230	0	0	20	1,040	12	14
Caldwell.....	1	a	0	0	8	a	0	2
Camden.....								
Carteret.....	1	1,720	0	0	0	0	0	0
Caswell.....	2	500	a	1	22	1,000	a	3
Catawba.....								
Chatham.....	4	1,950	2	2	20	1,464	10	10
Cherokee.....	4	2,055	1	3	2	2,025	a	a
Chowan.....	3	900	0	0	6	2,621	0	0
Clay.....								
Cleveland.....	14	390	a	4	44	861	a	12
Columbus.....	5	3,326	a	0	6	729	a	0
Craven.....	26	643	0	0	21	850	0	0
Cumberland.....	8	800	6	4	16	1,000	10	9
Currituck.....	a	a	a	a	a	a	a	a
Dare.....								
Davidson.....	7	1,562	0	0	24	720	0	5
Davie.....								
Duplin.....	b				23	a	a	a
Durham.....	15	1,000	a	3	15	1,000	a	2
Edgecombe.....	6	1,620	a	0	29	2,041	a	2
Forsyth.....	21	900	6	5	18	c	3	2

a. No data given. b. Jail burned. c. Ample.

Condition of Jails and Poor-houses by Counties for May, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin.....	1	5,000	1	a	19	11,626	19	1
Gaston.....								
Gates.....								
Graham.....								
Granville.....	5	5,000	1	3	21	730	10	7
Greene.....								
Guilford.....	16	400	6	9	26	1,250	13	11
Halifax.....								
Harnett.....								
Haywood.....								
Henderson.....	7	800	a	7	2	2,500	a	0
Hertford.....								
Hyde.....								
Iredell.....								
Jackson.....	1	2,000	0	1	2	1,000	a	a
Johnston.....	4	3,030	1	2	16	930	5	6
Jones.....	a	a	a	a	4	1,120	a	a
Lenoir.....								
Lincoln.....	7	1,102	0	5	30	345	0	5
McDowell.....	3	550	1	3	6	600	2	1
Macon.....	1	327	0	0	0	0	0	0
Madison.....								
Martin.....	3	1,500	1	2	11	500	2	2
Mecklenburg.....								
Mitchell.....								
Montgomery.....	0	0	0	0	12	500	a	a
Moore.....								
Nash.....	0	0	0	0	25	a	a	a
New Hanover.....	18	500	12	10	21	600	15	9
Northampton.....	a	a	a	a	35	1,000	15	10
Onslow.....	1	a	a	a	6	a	2	2
Orange.....	4	512	1	2	32	2,048	12	14
Pamlico.....								

a. No data given.

Condition of Jails and Poor-houses by Counties for May, 1889. (CONTINUED.)

COUNTIES.	JAIL.					POOR-HOUSE.				
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of success- ful vaccination.	Number who can read and write.	Number in- mates in	Space allotted each. (In cubic feet.)	Number giv- ing evidence of success- ful vaccination.	Number who can read and write.		
Pasquotank.....										
Pender.....	3	a	2	2	7	a	3	3		
Perquimans.....										
Person.....										
Pitt.....										
Polk.....										
Randolph.....										
Richmond.....										
Robeson.....	9	766	a	a						
Rockingham.....	14	810	a	9	55	500	a	22		
Rowan.....	15	512	3	5	16	2,500	2	2		
Rutherford.....	20	342	a	a	35	740	10	6		
Sampson.....	1	a	0	0	22	a	1	1		
Stanly.....	3	b	0	2	11	b	0	1		
Stokes.....										
Surry.....										
Swain.....	0	0	0	0	a	a	a	a		
Transylvania.....	0	0	0	0	4	2,000	2	2		
Tyrrell.....	0	1,100	0	0	2	1,000	0	0		
Union.....	7	1,500	a	2	16	2,000	a	1		
Vance.....	2	5,088	a	2	13	13,208	a	a		
Wake.....	15	1,804	a	a	52	a	a	a		
Warren.....	4	2,700	2	2	12	2,860	6	1		
Washington.....	10	a	4	5	10	a	4	5		
Watauga.....	1	500	a	a	5	1,650	0	5		
Wayne.....	7	850	4	5	11	1,650	5	3		
Wilkes.....										
Wilson.....	7	1,898	1	1	26	981	2	2		
Yadkin.....										
Yancey.....										

a. No data given. b. Plenty (?).

Meteorological Report for May, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.							
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.	
Chapel Hill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chat'oga, Tenn.	65.2	91.0	10	41.0	d	50.0	24.8	38.0	e	7.0	1&4	12b	15e	4	10	4.59	W.	
Charleston, S. C.	71.0	96.0	13	49.0	4	47.0	19.0	29.0	a	10.0	a	22	8	1	5	.98	S.W.	
Charlotte.....	68.8	95.0	11	38.0	4	57.0	25.1	36.0	23	12.0	30	18	8	5	4	2.75	N.& S.E.	
Columbia, S. C.	73.0	97.5	11	44.5	4	53.0	a	a	a	a	a	16b	10e	5	7	.95	N.W.	
Hatteras	67.0	84.0	11	52.0	5	32.0	12.0	20.0	9	6.0	2	16b	11e	4	10	6.03	N.	
Kitty Hawk.....	68.5	94.0	11	46.5	23	47.5	19.8	33.5	24	8.0	19	7b	18e	6	13	2.54	N. E.	
Knoxv'le, Tenn.	63.4	91.0	17	36.0	4	55.0	24.0	37.0	23	6.0	1	15	11	5	9	4.08	W.	
Lynchburg, Va. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norfolk, Va.....	65.5	93.0	10	46.0	4	47.0	19.3	33.0	8	9.0	19	12	10	9	13	4.58	N.W.	
Raleigh	68.2	94.0	9	40.0	4	54.0	23.4	36.0	a	5.0	a	22	4	5	12	5.30	N.	
Southport.....	70.0	86.7	11	44.2	5	42.5	26.2	29.2	6	2.8	19	19b	8e	4	8	3.04	S.W.	
Wake Forest....	67.6	93.0	16	37.0	4	56.0	31.0	41.0	a	10.0	a	13	11	7	10	3.91	N. E.	
Wilmington	69.4	97.0	11	45.0	4&5	52.0	19.0	34	11	3.0	6	17	9	5	9	4.24	S.W.	

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C. ....	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn.	30.90	30.35	5	29.61	30	.71
Charleston, S. C.	30.00	30.27	5	29.79	11	.48
Charlotte, N. C.	30.00	31.30	18	29.74	12 & 30	.56
Columbia, S. C.	a	.....	.....	.....	.....	.....
Hatteras, N. C.	30.01	30.31	18	29.76	12	.55
Kitty Hawk, N. C.	a	.....	.....	.....	.....	.....
Knoxville, Tenn.	30.05	30.36	5	29.70	30	.66
Lynchburg, Va. ....	.....	.....	.....	.....	.....	.....
Norfolk, Va.	29.98	30.35	18	29.76	12	.59
Raleigh, N. C.	29.97	30.29	18	24.72	11	.57
Southport, N. C.	e	.....	.....	.....	.....	.....
Wake Forest, N. C.	30.12	30.43	18	29.83	31	.60
Wilmington, N. C.	29.98	30.26	18	29.75	11 & 2	.53

a, no data given. b, cloudless. c, partly cloudy. d, 4th and 23d. e, 23d and 29th.

Mortuary Report for May, 1889.

TOWNS AND REPORTERS.	Population, Races.	Temporary Annual death Rate per 1,000.						Deaths By Towns Deaths under 5 yrs.														
		By Races		By Races		Total	Tot.	Typhoid Fever,	Scarlet Fever,	Malaria Fever,	Diphtheria,	Whooping-Cough,	Measles,	Pneumonia,	Consumption,	Brain Diseases,	Heart Diseases,	Nervous Diseases,	Diarrhoeal Diseases,	All other Diseases,	Accid't & Violence,	Suicide,	Still-Born.
Asheville.....	White	7,000	10,000	8.4	8.4																	
Dr. H. B. Weaver.....	Color'd	3,000		7.2																		
Charlotte.....	White	6,000	11,000																			
Dr. J. Scarf.....	Color'd	5,000																				
Durham.....	White	4,500	8,000	31.4	19.6															1	7	11
Dr. N. M. Johnson.....	Color'd	3,500		13.2																4		
Fayetteville.....	White	2,800	5,000		4.8															2	2	2
Dr. J. A. Hodges.....	Color'd	2,200		10.8																2	4	1
Goldsboro.....	White	2,800	5,000	4.8	7.2															1	3	
J. E Peterson, Mayor.....	Color'd	2,200		4.8																2		
Henderson.....	White	1,785	3,500	19.2	26.4															3	8	1
Dr. A. Cheatham.....	Color'd	1,715		24.8																5	8	3
Newbern.....	White	3,500	8,000	6.0	16.1															2	18	5
S. Fulcher, City Clerk.....	Color'd	4,500		22.0																16		
Oxford.....	White	1,600	3,300	39.2	18.6															1	5	
Dr. J. M. Hays.....	Color'd	1,700		10.0																		
Raleigh.....	White	8,000	15,000	11.4	16.8															10	21	3
Dr. Jas. McKee.....	Color'd	7,000		18.0																11		6
Salisbury.....	White	2,800	4,500	3.6	4.8															1	1	
Dr. J. J. Summerell.....	Color'd	1,700		8.4																		
Tarboro.....	White	1,300	2,500	8.4	18.0															1	4	1
Dr. J. M. Baker.....	Color'd	1,200		30.0																3		
Washington.....	White	2,100	4,000	14.4	8.4															3	4	
Dr. W. A. Blount.....	Color'd	1,000		7.2																1		
Wilmington.....	White	9,000	23,000	8.4	13.2															7	13	5
Dr. F. W. Potter.....	Color'd	14,000		5.3																22	13	9
Greensboro.....	White	4,000	6,000	6.0	9.6															2	5	
Dr. R. W. Tate.....	Color'd	2,000		18.0																3		
Statesville.....	White	.....	3,500	15.6	13.2															4	4	
Dr. M. H. Hill.....	Color'd	.....																		6		
Wilson.....	White	2,000	3,500	12.0	13.2															2	4	1
Dr. N. Anderson.....	Color'd	1,500		15.6																12		
Hillsboro.....	White	350	600	9.2	7.2															3	4	
Dr. D. C. Parrish.....	Color'd	250		4.8																1		
Monroe.....	White	2,000	2,300	6.0	4.8																	
Dr. W. C. Ramsay.....	Color'd	300		9.6																		
Salem—C. B. Pohl, City Clerk.....	White	2,500	3,900	4.8	12.0															2	1	5
Dr. C. B. Pohl, City Clerk.....	Color'd	500		9.6																		
Warrenton.....	White	1,050	2,000	10.8	6.0															1	1	
Dr. P. J. Macon.....	Color'd	900																				
Rockingham.....	White	1,000	1,500	36.0	39.6															2	7	
Dr. W. W. Covington.....	Color'd	500		18.0																1		
Reidsville.....	White	2,100	3,600	11.4	15.6															3	5	1
Dr. F. E. Balsley.....	Color'd	1,200		19.2																1	2	2

ELISHA MITCHELL SCIENTIFIC SOCIETY.
CHAPEL HILL, N. C.

BULLETIN

OF THE

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VOL. IV.

JULY, 1889.

NO. 4.

Rules for Railroad Quarantine.

[*From Proceedings of Montgomery Quarantine Conference.*]

The rules for the government of railroad quarantine, as drawn up by the special committee appointed for that purpose, are here subjoined.

The committee was composed of Col. J. C. Clark, and Drs. J. B. Baird, J. T. Porter, R. S. Starkweather, Wm. Bailey, H. B. Horlbeck, J. E. Black, R. Rutherford, R. F. Gray, O. R. Early and C. M. Smith.

RULES PREPARED BY THE COMMITTEE.

1. Quarantine should not be made against any place until it is officially known that yellow fever or other infectious or contagious disease exists at such place.

2. Only competent physicians should be put in charge of quarantine stations; and only thoroughly qualified persons should be employed as inspectors on railway trains.

3. Quarantine stations, located on railroads, should be established at convenient points, on

one or both sides of a town or station, as may be deemed necessary.

4. If an epidemic of yellow fever, or other infectious or contagious disease, exist at a town or station, trains carrying passengers or freights should be required to pass through the limits of such towns or stations at a speed of not less than ten (10) miles per hour, without stopping at such towns or stations, but should stop at the quarantine station.

5. Passengers to or from such infected point should only be received or delivered at the quarantine station, under the supervision of the quarantine officer in charge of the station.

6. Railway tickets may be sold to persons leaving an infected place to any point willing to receive them.

7. All baggage from any infected point should be properly disinfected.

8. As far as practicable, the same rules proposed for railroads should be applied to vessels of every kind, stage coaches, or other means of travel.

9. The passage of railroad trains through

any point on the line of road, whether infected or not, should not be prohibited by any quarantine regulations. The conductors of passenger trains should close the windows and ventilators and lock the doors of cars passing through any place where a train is not permitted to stop.

10. All freight to any infected place should be delivered either at the quarantine station or the nearest railway station to such infected point, where it can be properly cared for.

11. All mail matter from any infected place should be properly disinfected by the United States Government. And mail matter intended for infected points should be put off the trains at the quarantine stations. The United States Government should instruct postmasters to receive and deliver mails at such quarantine stations.

12. Railroads and express companies may receive for transportation from any infected place during the time such infection exists, any merchandise or traffic consigned to places willing to receive it.

13. State authorities should employ competent persons on passenger trains as inspectors of passengers, baggage and express matter as additional precaution; but the fact of inspectors being on such trains should not relieve trains carrying passengers, or express matter or baggage, from stopping at quarantine stations for such inspection as the officer in charge may determine to be necessary.

14. It is recommended that all quarantines, as far as practicable, should be uniform in their requirements and operations, which will greatly contribute to the prevention of panics, and tend to allay unnecessary excitement and fear on the part of the people.

15. The form of health certificate adopted by the quarantine convention held at Montgomery, March 5, 1889, should be prepared for health officers to issue to such persons as may be found entitled to receive the same. A copy of this certificate should be printed with these rules, and conspicuously posted at railway stations.

16. It is the desire and intention of health authorities, as far as practicable, to throw every safeguard around the public health of all localities. Municipal, county and State authorities are expected to co-operate in every possible way with health officers located in towns, villages and cities, and in charge of quarantine stations, to enable them to prevent the introduction or spread of yellow fever or other infectious or contagious diseases.

Isolation.

PREAMBLE.—*The first and most important step to take against the invasion of contagious diseases is isolation. It is the most certain and direct way of preventing them from spreading through the population; therefore the isolation of those who are sick with small-pox, cholera, diphtheria, typhoid and scarlet fevers is to-day universally recognized as of ABSOLUTE NECESSITY and a most binding obligation whenever any of the above contagious diseases breaks out in a family.*

1. In densely populated cities, and in smaller towns and villages where circumstances render it necessary (such as in places where there are factories, or residences built in rows, &c.), and, more particularly in case of an outbreak of cholera or small pox, the sick should be removed to a special building, either permanent or temporary, erected for the purpose, and the houses from which the sick are taken should be disinfected and cleaned under the direction of the local board immediately after the removal of the patients.

2. When no special building has been set apart or erected for the purpose, the sick should be isolated at home, and should be put in a room on the topmost flat of the house, and, if possible, in a room at the end of a passage. If necessary, the house itself should be quarantined.

3. All carpets, curtains, articles of dress, pictures, and all things not absolutely needed by the patient, must be removed from the room.

4. There should be plenty of sunlight and good ventilation, without, however, exposing the patient to draughts of air.

5. The patient's bed should be placed in the centre of the room, and the door kept closed as much as possible.
6. All discharges from the throat, mouth or nose of the patient should be received on rags, and these should be immediately burnt, or in a vessel containing a disinfecting solution. [See No. 6, under *Disinfection*.]
7. The discharges from the bowels, as well as the urine of the patient, should be received into a vessel containing a disinfecting solution [see No. 6, under *Disinfection*], and should then be thrown into the water-closet. Should there be no water-closet, they should be buried in the ground at a distance of one hundred feet at least from any well or other source of water-supply, and at a depth of not less than two feet.
8. Clothing, bed-linen, towels, &c., which have been used by the patient, should, immediately on removal, be dropped into a bucket or tub containing a disinfecting solution [see No. 8, under *Disinfection*], and should remain soaking in that fluid for at least two hours before being taken out of the room. They should then be boiled in water and washed in the ordinary way.
9. No one must enter the sick-room except those absolutely necessary to the care of the patient, and such persons should wear linen of cotton, rather than woolen clothing, so that it can be more easily washed in boiling water, to free it from contagion, immediately after the nursing is done with the patient.
10. No article of food or drink which has been in the sick-room, should be used by any other person. The dishes, &c., which have been used by the patient should be thoroughly cleaned with boiling water before being used by the other members of the household.
11. After complete recovery, the patient should be given at least one bath in hot water, using carbolic soap, and should have a complete change of clothing before leaving the sick-room and mixing with healthy persons.
12. When a patient is isolated, no member of the household should be allowed to attend school, college or convent, or to take part in any public assembly, or to attend the services of the church.
13. These measures of isolation and quarantine should be strictly put in force during the whole course of the disease, and until, recovery or death having occurred, the sick-room, with the whole house, has been properly disinfected and cleaned under the superintendence of the health officer or family physician.
14. During the prevalence of a contagious disease in a locality, it is most important to see that the drains, ditches, privy-pits and yards around the houses should be kept clean and in good order. It is then especially that all refuse, garbage and decomposing organic matters, &c., should be removed, burned or buried, also chloride of lime, in powder or in solution, sprinkled over unwholesome places to disinfect them. [See No. 7, under *Disinfection*.]
15. Under no pretext whatever may other persons be admitted into the sick-room than the nurse, the physician and the clergyman.
16. In a house where a contagious disease, such as diphtheria, scarlet or typhoid fever, measles or whooping-cough is known to exist, no children from other houses should be admitted under any pretext whatever; neither should adults be allowed to enter, except under certain restrictions, as infection is frequently carried from one house to another by visitors.
17. Whenever there is small-pox, cholera, or even diphtheria, when the patient cannot be properly isolated, not only the patient must be kept in his room, but the whole house must be quarantined.
18. When a house is quarantined, nobody from the inside should be allowed to have any communication with those outside, and nobody from outside should go into the house under any pretext, always excepting the physician and clergyman.
19. Immediately after the death of an infected person, the body should be enveloped in a sheet thoroughly saturated with a disinfecting

solution [see No. 12, under *Disinfection*] and be immediately buried without a public funeral and without being taken into any church.

20. In order to prevent premature burial, it is desirable, whenever possible, to have the actual death determined and certified by a properly qualified physician, and to have the body buried only on the presentation of such medical certificate of death — *Taken from pamphlet issued by the Provincial Board of Health of Canada.*

Disinfection.

PREAMBLE.—*Disinfection is not less important than isolation. If by isolation, contagious diseases are kept within certain prescribed limits, by disinfection all contagious germs or microbes which have been developed, either in the isolated sick-room or in the infected and quarantined house, are effectually destroyed. As these germs or microbes cause the spread of contagious diseases, it is highly important to destroy them, and there is no other way of doing this than by an effectual method of disinfection.*

1. Disinfection should be carried out under the direction of the Health Officer of the Local Board of Health.

2. In all cases of difficulty, the Health Officer should place himself in communication with the Provincial Board (Secretary of the State Board of Health) for guidance.

3. Local boards should see that persons who are obliged to vacate their houses during the process of disinfecting and cleaning, are properly cared for and fed, and that the convalescents are not exposed to cold.

4. Disinfection, if done at all, must be thoroughly done. The mere burning of only a few spoonfuls of sulphur is worse than useless, as it gives rise to a false security.

5. The use of disinfectants must always be supplemented by perfect cleanliness, both of person and apartments.

6. DISINFECTION OF EXCRETA. (In the sick-room.)

The disinfection of excreta should take place immediately after it is discharged from the

body, and either of the following may be used:

1. Chloride of lime, 6 oz. in a gallon of water.
2. Carbolic acid, 4 oz. in a gallon of water.

The saliva of diphtheria patients shall be discharged into a cup half filled with either of the above solutions.

7. DISINFECTION OF EXCRETA. (In privy-vaults.)

1. Corrosive sublimate and permanganate of potash, of each two drachms in a gallon of water.
2. Carbolic acid, 4 oz. in a gallon of water.
3. Chloride of lime in powder.
4. Chloride of lime, 6 oz. in a gallon of water.

(Chloride of lime, freely sprinkled daily over the surface of privy-pits, or other ill-smelling masses of decomposing organic matters, is highly recommended as being the cheapest and most readily obtainable deodorizer and disinfectant.)

8. DISINFECTION OF WOOLEN OR COTTON CLOTHING, SHEETS, &c.

Any of the following may be used:

1. Destruction by fire if of little value.
2. Boiling in water for at least half an hour.
3. Immersion for four hours in a solution of corrosive sublimate, one drachm being dissolved in a gallon of water.
4. Immersion for four hours in a solution of carbolic acid, one ounce of pure carbolic acid to a gallon of water.

No delay should occur between the time of removing soiled clothing from the person or bed of the sick and its immersion in boiling water or one of the solutions mentioned.

9. DISINFECTION OF GARMENTS OF WOOL, WHICH WOULD BE INJURED BY BOILING WATER OR DISINFECTING SOLUTIONS.

1. Exposure in a suitable apparatus to a current of steam for ten minutes.
2. Exposure to dry heat at a temperature of 230 degrees Fahrenheit for two hours.

3. When convenience does not exist for the above methods, hang the articles on cords across a closed room and expose to the fumes of burning sulphur for twelve hours.

10. DISINFECTION OF MATTRESSES AND BLANKETS SOILED BY DISCHARGES OF THE SICK.

1. Destruction by fire if of little value.
2. Exposure to superheated steam (221 degs. Fahr.).
3. Immersion in boiling water for half an hour.

**11. DISINFECTION OF THE PERSON OF NURSES
AND ATTENDANTS ON THE SICK.**

1. Solution of chlorinated soda (Labaracque's solution), one part of the official liq. soda chlor. and nine parts of water.
2. Carbolic acid, one tablespoonful of carbolic acid in one gallon of water.
3. Corrosive sublimate, one drachm of sublimate in one gallon of water.

Either of the above solutions may be used for bathing the hands and face. The corrosive sublimate solution must be used very cautiously.

N. B.—Twenty per cent. carbolic soap may be used for the whole of the body.

12. DISINFECTION OF THE DEAD.

Envelop the body in a sheet well sewed up and thoroughly saturated with either of the following solutions:

1. Corrosive sublimate, two drachms in one gallon of water.
2. Carbolic acid, 4 oz. in a gallon of water.
3. Chloride of lime, 6 oz. in a gallon of water.

**13. DISINFECTION OF THE HOUSE OR THE
SICK-ROOM AFTER DEATH OR RECOVERY.**

After the convalescent and the inmates of a house who have been exposed to the contagion have been properly disinfected, they must leave the house while it is being disinfected. If for want of accommodation elsewhere they cannot leave it, then only part of the house must be disinfected at one time, into which the disinfected inmates may be placed whilst the other part of the house is undergoing disinfection.

14. HOW TO DISINFECT WITH SULPHUR.

To disinfect the house or sick-room, fumigate with sulphurous acid gas for twelve hours, by burning at least three pounds of sulphur for every one thousand cubic feet of air-space.

Every aperture, hole, joint, etc., must be impermeably closed, and the windows so arranged that they may be opened from the outside, either by a string or by some other contrivance from the inside. It must be borne in mind that sulphurous acid gas (vapor of burn-

ing sulphur), when breathed in large quantities, is destructive to life.

To insure the combustion of the sulphur, and as a precaution against fire, place the sulphur, either in powder or in small fragments, in an iron pan, which should be placed upon a couple of bricks or stones in a tub partly filled with water. In order to insure the ignition of the sulphur, the surface should be well moistened with alcohol before applying the light. Several twisted slips of newspaper imbedded in the sulphur and projecting above the surface and ignited at their ends will answer the same purpose.

When the process of fumigation is completed, throw open all doors and windows and air the house well, after which sponge all exposed surfaces with a solution of carbolic acid, two ounces in each gallon of water, and give a final scrubbing with soap and hot water in the usual way.—*Taken from pamphlet issued by the Provincial Board of Health of Canada.*

HYDROPHOBIA FROM THE BITE OF A CAT.—A death, in the person of a child two years of age, occurred in Wilmington during the month. The child was bitten on its face by a cat in Florence, S. C., and in about five weeks hydrophobia appeared, the child dying early in the attack, but all the symptoms were well marked. This is the first case of hydrophobia known to have occurred in Wilmington.

*Review of Diseases Reported by Counties for
the Month of June, 1889.*

Bronchitis was reported from Orange.

Cerebro-spinal meningitis was reported from Orange and Washington.

Cholera-infantum was reported in Gaston, Nash, Orange, Rowan, Yancey and Washington.

Cholera-morbus was reported from Greene, Madison, McDowell, Orange, Washington and Yancey.

Cystitis was reported from Orange.

Diarrhoea was reported from Chowan, Columbus, Cumberland, Forsyth, Greene, Johnston, Jones, Martin, Macon, Montgomery, Nash, New Hanover, Northampton, Rowan, Rutherford, Sampson, Union, Vance, Washington and Yancey.

Distemper among horses was reported from Craven.

*Chicken-cholera was reported from Rutherford and Chatham.

*Diphtheria was reported from Tyrrell and Washington.

Enterocolitis was reported from Onslow.

*Glanders was reported from Craven.

*Hog-cholera was reported from Columbus, Duplin, Northampton, Rutherford and Sampson.

Impetigo-contagiosum was reported from Greene.

Influenza was reported from Alamance.

Malarial fever was prevalent in Chowan, Durham, Forsyth, Greene, Lincoln, Nash, Onslow, Orange, Pender, Person, Rowan, Sampson, Transylvania, Washington and Yancey.

Locomotor ataxia was reported from Greene.

*Measles was prevalent in Caldwell, Forsyth, Johnston, Lincoln, Sampson and Wayne.

Mumps was reported from Alamance, Caldwell, Chatham and Edgecombe.

Dysentery was reported from Alexander, Ashe, Alleghany, Bertie, Chatham, Cherokee, Chowan, Cumberland, Brunswick, Greene, Jackson, Lincoln, McDowell, Montgomery, Nash, Franklin, Northampton, Orange, Pender, Person, Robeson, Rowan, Transylvania, Onslow, Union, Durham, Washington, Vance and Sampson.

*Pneumonia was reported from Alleghany and Yancey.

Scarlatina was reported from Caswell.

*Typhoid fever was prevalent in the following counties: Cabarrus, Caldwell, Catawba, Chatham, Chowan, Cleveland, Columbus, Craven, Gaston, Henderson, Iredell, Jackson, Johnston, Lincoln, Macon, Madison, McDowell,

New Hanover, Franklin, Pender, Rowan, Transylvania, Washington and Watauga.

Whooping-cough was reported from Jackson, Macon, Onslow, Simpson, Madison and Wayne.

*NOTE.—All diseases marked thus * are considered as dangerous to the public health, and should be reported promptly.

Summary of Mortuary Statistics from Towns for the Month of June, 1889.

	White.	Col'd.	Total.
Aggregate population--	73,785	59,515	133,300
Aggregate deaths -----	81	121	202
Temporary annual death rate per 1,000-----	12.8	24.0	16.8
Deaths under 5 years..	23	48	71
Cause of Death.	White.	Col'd.	Total
Typhoid fever -----	5	2	7
Malarial fever -----	0	4	4
Diphtheria -----	1	0	1
Pneumonia-----	0	3	3
Consumption -----	7	21	28
Brain diseases -----	2	4	6
Heart diseases-----	3	4	7
Neurotic diseases -----	0	5	5
Diarrhoeal diseases ...	38	31	69
All other-----	23	46	69
Accident-----	2	1	3
Still-born -----	9	16	25
Under 5 years -----	23	48	71
Total-----	81	121	202

Summary of Report Received from Counties for the Month of June, 1889.

Alamance.—Dr. George W. Long, Graham. The general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the poor-house is good; that of the jail is as good as the building will permit. Mumps and influenza have prevailed in portions of the county. The court-house is nearly completed, and will be first-class.

Alexander.—Dr. H. McD. Little, Taylorsville. The general sanitary condition of the county is good; very little sickness of any kind; two deaths reported from dysentery—one an old lady, the other a small child. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the poor-house is not good at present; the two rooms being added are about completed and will soon be occupied, which will greatly improve its present sanitary condition.

Alleghany.—Dr. George Daughton, Sparta. The sanitary condition of the county is good. I have a few cases of pneumonia and dysentery to report; no contagious diseases have prevailed in any portions. There has been no epidemic of any kind among domestic animals. The sanitary condition of the jail is pretty fair; much better than it was last month.

Ashe.—Dr. J. W. Colvard, Jefferson. The sanitary condition of the county is not good at this time, owing to the continued wet weather. We have had rain nearly every day for the last thirty days. We have a good deal of dysentery in some sections. There has been no epidemic of any character among domestic animals. The sanitary condition of the public buildings is right good; nothing is being done to better said condition at this time.

Anson.—Dr. F. E. Ashe, Wadesboro. No report received.

Beaufort.—Dr. W. A. Blount, Washington. The general sanitary condition of the county is quite good. There has been no epidemic among domestic animals. No improvements have been made in the sanitary condition of the public buildings, but the authorities have the matter under discussion.

Bertie.—Dr. H. V. Dunston, Windsor. The sanitary condition of the county is fairly good, but dysentery has prevailed in two or three portions. There has been no epidemic of any kind among domestic animals. The sanitary condition of the jail and poor-house is being improved.

Bladen.—Has no Board of Health.

Brunswick.—Dr. D. B. McNeill, Supply. Dysentery of a rather stubborn type has prevailed epidemically in southern portion of county. There has been no change in the sanitary condition of the public buildings since last report.

Buncombe.—Dr. H. B. Weaver, Asheville. The general sanitary condition of whole county was never known to be better. There is some little "summer complaint" here and there; also a few cases of simple continued fever have been reported—no deaths therefrom. There has been no epidemic of any kind among domestic animals. The public buildings are in most excellent sanitary condition; have now completed an annex to the poor-house for the colored. Health of inmates of both institutions good; not a death in either for past six months.

Burke.—Dr. J. L. Laxton, Morganton. No report received.

Cabarrus.—Dr. Robert S. Young, Concord. The general sanitary condition of the public buildings is good. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the county is good, but have had seven cases of typhoid fever.

Calloway.—Dr. Robert L. Beall, Lenoir. The general sanitary condition of the county is good, but we have had a few cases of typhoid fever in Lenoir and Patterson; most of the cases are of a mild type. Mumps is epidemic in Patterson; measles in one neighborhood. There has been no epidemic of any kind among domestic animals. There has been no change in sanitary condition of public buildings, which is reasonably good.

Camden.—Dr. Ed. B. Ferebee, Bellcross. We have had a few cases of malarial fever (intermittent), and dysentery. Mumps in some portions of our county. More sickness than for the past few months; comparatively healthy yet. Our public buildings are in good condition.

Carteret.—Dr. M. F. Arendell, Morehead City. The health of Carteret has been good for the last month. I fear it may become sickly, from the large amount of water which

fallen for the last week. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good; they are old, but in a clean condition.

Caswell.—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county is very good. We have had so much rain that we are looking for much more sickness than we have had; a few cases of scarlatina have been reported in Western part of county. The general sanitary condition of the public buildings is very good. The poor-house is in fair condition. No sickness at poor-house or jail.

Catawba.—Dr. J. M. McCorkle, Newton. The sanitary condition of the county is good, but typhoid fever has prevailed in some portions. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good.

Chatham.—Dr. L. A. Hanks, Pittsboro. The general sanitary condition of the county is good, but in some sections there is considerable sickness, dysentery being the prevailing type of disease; it is mild in character, and, generally, readily amenable to treatment; mumps has also prevailed in several portions. There has been an epidemic of chicken-cholera. The general sanitary condition of the public buildings is good.

Cherokee.—Dr. J. T. Abernathy, Murphy. The health of the county is not as good as last month; nevertheless we have no malignant epidemic of any kind. Dysentery and kindred summer complaints have made their appearance, but they are easily controlled. The sewerage from the jail is defective: 1st, it is too shallow; 2d, it is discharged too near the well and the house—it being within fifteen feet of the latter, and not more than ten feet from the former. The Board of Aldermen have

agreed to extend the sewer a sufficient distance from the house.

Chowan.—Dr. R. W. Winborne, Barnitz. There has been an unusual rainfall this month, and, as a consequence, the larger number of inhabitants have been drinking unwholesome water and eating unwholesome fruits and vegetables, which have given rise to a great deal of gastro-intestinal disturbance. There have been no epidemics of any kind among domestic animals. The sanitary condition of the public buildings is good.

Cleveland.—Dr. J. C. Gidney, Shelby. The general sanitary condition of the county is very good, and the health of the county is better than for many years. No epidemic of any kind among domestic animals. The sanitary condition of the public buildings is as good as can be made under the present plan. Improvement on jail contemplated.

Clay.—Has no Board of Health.

Columbus.—Dr. Isaac Jackson, Whiteville. The sanitary condition of the county has been good for this season of the year. We have had four cases of typhoid fever in the village; diarrhoea has prevailed in the county, but of a mild type; children have been unusually healthy. There has been an epidemic of hog-cholera in some sections of the county. The sanitary condition of the public buildings is good.

Craven.—Dr. Leinster Duffy, Newbern. The general sanitary condition of the county is good; dysentery in same localities as reported last month; two cases of typhoid fever. There has been an epidemic of distemper among our horses, and four cases of glanders discovered, two in the city and two in the county. Two of them died before the arrival of the United States veterinary expert sent to us by request of the State Board of Health. The others were killed as soon as examinations were completed; no new cases yet reported. Our public buildings are kept in good sanitary condition.

Cumberland.—Dr. J. A. Hodges, Fayette-

ville. More sickness reported than during the past three months; nearly all of it, however, due to diarrhoeal troubles—only four cases of dysentery reported. The public buildings are in good condition and are kept cleanly. There have been three slight cases of malaria in the jail during the month.

Currituck.—Dr. T. W. Ritter, Moyock. I have no report for June, as it is exceptionally healthy.

Dare.—Has no Board of Health.

Davidson.—Dr. R. L. Payne, Jr., Lexington. The general sanitary condition of the county is good, but dysentery has prevailed in all portions. There has been no epidemic among domestic animals. The sanitary condition of the public buildings remains unchanged since my last report.

Davie.—Has no Board of Health.

Duplin.—Dr. James W. Blount, Kenansville. The general sanitary condition of the county is good. There has been a large quantity of rainfall, causing general overflow, which will probably cause miasmatic diseases should the weather become dry. There has been an epidemic of hog-cholera. The general condition of poor-house is good; inmates generally in a healthy condition.

Durham.—Dr. N. M. Johnson, Durham. The healthfulness of the county during June has been as good as any like month in many years; some bowel diseases and some malarial fever have been reported. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Edgecombe.—Dr. Julian M. Baker, Tarboro. The sanitary condition of the county is good, but mumps has prevailed in some portions.

Forsyth.—Dr. D. N. Dalton, Jr., Winston. The sanitary condition of the county is very good. Diarrhoea and several mild cases of intermittent fever seem to be the prevailing diseases for the past month. There has been no epidemic among domestic animals. The

sanitary condition of the public buildings is good.

Franklin.—Dr. E. S. Foster, Louisburg. Dysentery has prevailed in nearly all portions; two cases of typhoid fever reported. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good.

Gaston.—Dr. E. B. Holland, Dallas. The sanitary condition of this county is very good, remarkably healthy for the month just past. Sporadic cases of typhoid fever and cholera-infantum have prevailed. There has been no epidemic among domestic animals. The sanitary condition of public buildings is excellent. The jail is now undergoing remodeling and being enlarged and much improved.

Gates.—Has no Board of Health.

Graham.—Has no Board of Health.

Granville.—Dr. J. M. Hays, Oxford. No epidemic has prevailed in this county, except dysentery, which is less prevalent than in May. There has been no epidemic of any kind among domestic animals. Our jail and poor-house are both in perfect sanitary condition at present. The sewer leading from the jail is stopped partially, and work to remedy this will be begun at once.

Greene.—Dr. W. C. Galloway, Snow Hill. There is a good deal of sickness in this county, mostly dysentery and malarial fever; quite a number of cases of cholera-morbus, three supposed to be due to impure canned peaches; some impetigo-contagiosum still abroad; diarrhoea frequent. Poor-house is in very good sanitary condition; jail will do tolerably well; good deal of sickness at poor-house this month; two cases of locomotor ataxia, old standing, both in third stage.

Guilford.—Dr. R. W. Tate, Greensboro. The general sanitary condition of the county is good, with the exception of diarrhoea and dysentery of a mild type. There have also been six cases of measles, four of diphtheria and one of typhoid fever. There has been no epi-

demic among domestic animals. The sanitary condition of the poor-house is good; the inmates are well cared for. The sanitary condition of the jail is as good as could be under existing circumstances.

Halifax.—Has no Board of Health.

Harnett.—Has no Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. The health of the county is remarkably good; the sanitary condition of the county was never better. There has been no epidemic among domestic animals. The jail is a disgrace to the county, but it is kept in a good and healthy condition by the jailer.

Henderson.—Dr. L. L. Johnston, Angeline. The sanitary condition of the county is very good; seven cases of typhoid fever reported from different parts of the county. There has been no epidemic of any kind among domestic animals. The sanitary condition of the jail and poor-house is very good. A contract has been let for the building of a new poor-house; one for jail at an early day.

Hertford.—Has no Board of Health.

Hyde.—Dr. Edward Clark, Middleton. No report received.

Iredell.—Dr. W. H. Hill, Statesville. As far as known, there has been very little sickness over the county in the month of June, therefore would say that the sanitary condition of the county is pretty fair, comparatively. There has been no epidemic of any kind among domestic animals. There has been no sickness in the jail, and this would argue favorably as to the condition of the jail. There is no effort at improvement. The poor-house is much more accessible to the free and pure air of heaven.

Jackson.—Dr. J. M. Candler, Dillsboro. The general sanitary condition of the county has been improved. We have had only four new cases of typhoid fever, all very mild; also a few cases of flux. There has been no epidemic of any kind among domestic animals. Will soon have the jail repaired and in good

condition. The poor-house is in good condition; the health of the inmates is good.

Johnston.—Dr. L. L. Sasser, Smithfield. The sanitary condition of the county is very good, but gastro-intestinal troubles have prevailed. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is very good.

Jones.—Dr. Charles B. Noodley, Trenton. Diarrhoea has prevailed in several portions of this county.

Lenoir.—Has no Board of Health.

Lincol'n—Dr. W. L. Crouse, Lincolnton. At the first of the month it seemed that typhoid fever was on the increase largely; since then no new cases have been reported. There is very little malarial fever in the county; some dysenteric troubles yet among children. There has been no epidemic among domestic animals. The general sanitary condition of jail and poor-house is good; the latter is badly crowded; no efforts at improvement. Both are kept clean, are located in healthy situations; have had but few diseases among them that were not contracted before being placed there.

Macon.—Dr. J. M. Lyle, Franklin. The general sanitary condition of the county is fairly good; there is considerable bowel trouble among children. The sanitary condition of the public buildings is good.

McDowell—Dr. J. H. Gilkey, Marion. The sanitary condition of the county is very good at present, but dysentery and cholera-morbus have prevailed pretty extensively, but not fatally. Had two cases of typhoid fever, both recovered. There has been no epidemic of distemper among domestic animals. The general sanitary condition of the public buildings is very good, and efforts are being made to keep them so.

Madison.—Dr. James K. Hardwicke, Marshall. The sanitary condition of the county is good; but a few cases of cholera-morbus and dysentery have been reported. The public buildings are in very good sanitary condition.

Martin.—Dr. W. H. Harrell, Williamston. The general sanitary condition of the county is good, except in the town of Hamilton, where I was called upon to abate nuisances upon both public and private property. Diarrhoea has prevailed in all portions. There has been no epidemic of any kind among domestic animals.

Mecklenburg.—Has no Board of Health.

Mitchell.—Has no Board of Health.

Montgomery.—Dr. W. A. Simmons, Troy. Bloody flux has prevailed all over the county for the past month and caused several deaths among children and one very old person. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good enough, and no efforts at improvement.

Nash.—Dr. G. W. Lewis, Spring Hope. We have had quite an abundance of sickness in Nash county during the month of June. Dysentery has prevailed generally, and of a very severe type; there have been a good many deaths from it. In addition to dysentery, we have had diarrhoea and a few cases of cholera-infantum. There has been no epidemic among domestic animals. The sanitary condition of public buildings is good; the inmates at jail and poor-house are well cared for.

New Hanover.—Dr. F. W. Potter, Wilmington. I believe the county, outside of the city, is in a fair sanitary condition. Some cases of a diarrhoeal nature prevail in some portions of the county. There has been no epidemic of any kind among domestic animals, that I have known or heard of. The jail is in good condition. House of correction is clean and well whitewashed. Poor-house is very clean; whitewashed every few days.

Northampton.—Dr. H. W. Lewis, Jackson. The general sanitary condition of the county cannot be called good, the recent heavy rains having filled up the ditches and thereby caused many pools of stagnant water. The general sanitary condition of the public buildings is good. The poor-house has recently been

greatly improved by a system of water-trapped bowls and soil-pipes to the house in which the insane are kept.

Onslow.—Dr. J. L. Nicholson, Richlands. Our county is not in a good sanitary condition, if we are to judge from the great amount of sickness prevailing, especially dysentery among the adults, and entero-colitis with the children. The tendency to malarial troubles is but slight. The bowel troubles are prevalent in every section of the county heard from. There has been no epidemic among domestic animals. The public buildings are in a fair sanitary condition; no improvements being made, though needed, at the poor-house.

Orange.—Dr. D. C. Parris, Hillsboro. The general sanitary condition of the county is fair for this month, taking into consideration the incessant and continuous rains. The rolling condition of our section of the country, and comparatively small area of swamp lands and stagnant ponds, enable us to enjoy, to a certain extent, immunity from infectious miasmata. We have had comparatively little sickness in our town, and no deaths of which I am able to learn. I have had reports from only two physicians in the county, as follows: Dr. T. J. Wilson, Chapel Hill, reports an epidemic of dysentery in his section (southern portion of the county); treated twenty-five cases, with five deaths; had of cholera-infantum three cases; cholera-morbus, two; intermittent fever, one; cystitis, one, and a sudden death from an unknown cause. Dr. A. C. Jordan, Caldwell Institute, in northeastern part of county, reports bronchitis, cerebro-spinal meningitis; cholera-morbus and dysentery frequent; gastro-duodinitis and intermittent fevers sporadically. Enteric fever is almost epidemic in his section. Diarrhoeal and dysenteric diseases have occurred sporadically in my section, and in this town intermittent and remittent fevers prevailed also in a sporadic manner. There has been no epidemic of any kind among domestic animals. The sanitary condition of all the public buildings is good; that of the poor-house and jail

better than usual at this season; lime and disinfectants are abundantly used; no unhealthy odor insults the olfactories of visitors to the jail, poor and guard houses. Cleanliness, irrigation, illumination and ventilation are prominent features of all the public buildings. A plan is projected to enlarge the seating capacity of the court-hall in the court-house.

Pamlico.—Has no Board of Health.

Pasquotank.—Has no Board of Health.

Pender.—Dr. S. S. Satchwell, Burgaw. The health of the county continues good; some bowel diseases, especially among children, but little malarial fever so far this season. The last twelve days in June much rain had fallen and our streams are high; less sickness in June than in the same month last year.

Perquimans.—Has no Board of Health.

Person.—Dr. C. G. Nichols, Roxboro. The general sanitary condition of the county is very good, but recent heavy rains have caused the bottom lands to be overflowed, causing some malarial fever from the stagnant water in certain localities; dysentery has prevailed to a fearful extent. There has been no epidemic among domestic animals this month. The poor-house is in good and jail in pretty good sanitary condition.

Pitt.—Dr. F. W. Brown, Greenville. No report received.

Polk.—Has no Board of Health.

Randolph.—Dr. J. W. Long, Randleman. I hear of little sickness over the county. We are not in working order yet; have received report from but one physician for June. One or two deaths in a distant part of the county, probably from typhoid fever. There has been a very slight epidemic of cholera among hogs here and in northeastern part of county.

Richmond.—Dr. W. W. Covington, Rockingham. The sanitary condition of the county is good, but dysentery has prevailed to some considerable extent, without, however, being much fatal; some few cases of typhoid fever.

There has been an epidemic of hog-cholera and chicken-cholera among domestic animals, as there seems to be every year. The sanitary condition of public buildings is good, with the exception of the cells for the confinement of lunatics at poor-house; they are so shamefully small and poorly arranged. I have frequently referred to this, and hope ere long some improved condition will be made.

Robeson.—Dr. R. F. Lewis, Lumberton. The sanitary condition of the county is fair, considering the heavy rainfall; bowel affections have prevailed in some portions. The public buildings are in good sanitary condition.

Rockingham.—Dr. T. E. Balsley, Reidsville. The sanitary condition of the town is bad; little attention paid to cleaning of town. The sanitary condition of jail is very bad; that of poor-house is good.

Rowan.—Dr. J. J. Summerell, Salisbury. There have been more bowel diseases and some fatality from dysentery and cholera-infantum, still the sanitary condition of town and country is pretty good for the time of the year. Our death rate in town is high for the month of June, but it is greatly increased by dysentery among the old people and cholera-infantum among the young children. There has been no epidemic of any kind among domestic animals that have come to my notice.

Dr. C. M. Poole, Craven.—I am happy to report that there has not been a fatal case of dysentery in my practice within the last month.

Dr. J. G. Ramsay, Mt. Vernon.—Flux or cholera-infantum; one fatal in child; one typhoid, fatal, from railroad; one sporadic case of erysipelas; no general sickness yet.

Our poor-house is well kept and the inmates are comfortably housed and cleanly; there are no local causes to produce disease; the grounds are regularly raked and swept and all filth removed. The jail has more prisoners than ought to be kept in it during the heated season. Our jail is poorly arranged for the comfort of the inmates, as well as for the purpose of imprisonment. The jail proper is the third story

of a brick building, and consists of a corridor running through the whole width, with five cells, two on one side and three on the other; the doors all opening on the corridor, which is about eight or nine feet wide, so there can be no solitary confinement, and the ease with which talking can be carried on across the corridor makes it a place devoid of reformatory results. I am urging the commissioners to build a more modern jail, or alter the old one so as to make it more suitable for the purposes for which jails are built.

Rutherford.—Dr. E. B. Harris, Rutherfordton. The sanitary condition of the county is very good at present, the flux having about ceased. There has been an epidemic of cholera among hogs and chickens. The public buildings are all in good sanitary condition.

Sampson.—Dr. John A. Stevens, Clinton. There have been a few cases of malarial fever and whooping-cough. I hear of a severe epidemic of measles prevailing in upper portion of this county. Diarrhoea and dysentery are very prevalent, some fatal cases. There has been an epidemic of hog-cholera. The general sanitary condition of the poor-house is very good; that of the jail is very bad.

Stanly.—Dr. R. Anderson, Albemarle. The general sanitary condition of this county is good; no disease has prevailed in any portion. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is fair; no efforts at improvement. The town of Albemarle is turned into a cow pasture.

Stokes.—Has no Board of Health.

Surry.—Has no Board of Health.

Swain.—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county is good; no sickness to amount to anything. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is good.

Transylvania.—Dr. D. H. Farmer, Brevard. There is a great deal of sickness in the

county at present, caused by the use of unwholesome corn, and I fear there will be many cases of blood disease this fall, as much of the corn that is used now I do not think would sprout if planted. There has been no epidemic of any kind reported among domestic animals. The public buildings are not in as good sanitary condition as they should be, with exception of the poor-house; it is in excellent condition. The Chairman of the Board of County Commissioners hopes to have them in good condition before the next current court in September.

Tyrrel.—Dr. Ab. Alexander, Columbia. One case of diphtheria and two of typhoid fever are reported. The public buildings are in good sanitary condition.

Union.—Dr. W. C. Ramsay, Monroe. Diarrhoea and dysentery have prevailed in some portions of the county, but it is gradually subsiding, and, from the present outlook, this county will be as healthy as usual. There has been no epidemic of any disease among domestic animals. The sanitary condition of the poor-house is good; that of the jail is indifferent.

Vance.—Dr. A. Cheatham, Henderson. With the exception of dysentery and diarrhoea, the general sanitary condition of the county has been good for this month. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good.

Wake.—Dr. James McKee, Raleigh. The sanitary condition of the city and county is very good; as fast as nuisances are reported they are promptly abated; our city and county authorities cheerfully render all aid. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is very good, and will be most decidedly improved when the system of sewerage is completed, which system has just been ordered to be constructed by the city.

Warren.—Dr. A. J. Macon, Warrenton.

The sanitary condition of the county is improving now; an epidemic of dysentery has prevailed in all portions. There has been an epidemic of diarrhoea among domestic fowls. The sanitary condition of the public buildings is excellent; the poor-house has been thoroughly whitewashed; the sink to the jail is disinfected daily; privy to poor-house is thoroughly deodorized.

Washington.—Dr. W. H. Ward, Plymouth. There has been considerable sickness in this county during the month of June. The following have been reported: Four cases of spotted fever, 10 of cholera-infantum, 5 of cholera-morbus, 15 of diarrhoea, 20 of dysentery, 12 of intermittent fever, 3 of remittent fever, 4 of typhoid fever, 1 of puerperal fever, and 4 of rheumatism. Reports have been received from three out of seven physicians. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is fair.

Watauga.—Dr. D. Council, Boone. The sanitary condition of the county is good in

every way; however, I fear the incessant rains up to this time will cause sickness later on. There has been no epidemic of any kind among domestic animals. A new jail is in course of construction; the poor-house is in good sanitary condition and well kept.

Wayne.—Dr. James Spicer, Goldsboro. The sanitary condition of the county is good, but have had several cases of measles and whooping-cough. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is good.

Wilkes.—Steps are being taken to organize a Board of Health in this county.

Wilson.—Dr. N. Anderson, Wilson. The sanitary condition of the jail and poor-house is good.

Yadkin.—Has no Board of Health.

Yancey.—Dr. J. L. Ray, Burnsville. The sanitary condition of the county is very good at present, perhaps better than usual at this season. The general sanitary condition of the jail is very good at present.

Condition of Jails and Poor-houses by Counties for June, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined,	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	11	1,000	2	2	24	500	a	a
Alexander.....	2	1,874	a	2	8	555	0	0
Ashe.....	3	545	a	a	9	600	1	2
Alleghany.....	3	800	1	1	1	1,200	0	0
Anson.....								
Beaufort.....	1	2,000	0	0	12	600	2	2
Bertie.....	2	810	a	0	11	500	a	0
Bladen.....								
Brunswick.....	1	a	a	a	10	1,100	a	a
Buncombe.....	16	1,000	9	15	36	700	18	15
Burke.....								
Cabarrus.....	6	3,019	0	0	21	1,202	10	12
Caldwell.....	1	a	0	1	a	a	0	2
Camden.....	a	a	a	a	a	a	a	a
Carteret.....	2	860	0	0	0	a	0	0
Caswell.....	1	a	0	a	22	1,000	9	2
Catawba.....	11	500	3	4	30	750	8	8
Chatham.....	1	7,810	1	1	20	1,464	10	10
Cherokee.....	3	2,850	a	a	2	1,025	a	a
Chowan.....	3	900	0	0	6	2,621	0	0
Clay.....								
Cleveland.....	13	420	a	5	43	881	a	13
Columbus.....	8	2,079	a	1	6	722	a	0
Craven.....	14	940	6	3	25	800	c	1
Cumberland.....	9	800	7	6	16	1,000	12	8
Currituck.....	a	a	a	a	a	a	a	a
Dare.....								
Davidson.....	7	1,562	0	6	23	720	0	4
Davie.....								
Duplin.....	b	b	b	b	22	a	a	a
Durham.....	4	1,000	a	2	16	1,000	a	2
Edgecombe.....	5	1,945	a	0	32	1,850	a	2
Forsyth.....	24	900	8	6	23	a	6	3

a. No data given. b. Jail burned. c. Nearly all.

Condition of Jails and Poor-houses by Counties for June, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin	1	5,000	a	a	19	11,626	a	1
Gaston.....	7	1,086	0	3	19	1,772	3	4
Gates.....								
Graham								
Granville.....	7	3,571	3	5	22	930	10	7
Greene.....	3	500	a	2	11	1,000	4	1
Guilford.....	15	300	5	6	25	1,250	12	13
Halifax.....								
Harnett.....								
Haywood.....	0	a	0	0	8	a	2	3
Henderson.....	9	1,000	a	6	2	2,500	a	0
Hertford.....								
Hyde								
Iredell.....	17	660	a	a	18	616	a	a
Jackson	a	a	a	a	4	2,000	2	2
Johnston.....	6	4,000	2	4	16	900	6	5
Jones	1	5,520	a	a	5	1,120	a	a
Lenoir.....								
Lincoln.....	9	857	a	7	26	400	a	5
McDowell.....	3	609	1	3	6	550	1	1
Macon.....	2	2,700	0	0	0	a	0	0
Madison.....	2	742	0	0	5	1,750	0	0
Martin.....	4	1,000	0	2	13	500	2	2
Mecklenburg.....								
Mitchell.....								
Montgomery.....	0	a	0	0	12	500	a	a
Moore.....								
Nash.....	3	a	1	2	30	a	a	a
New Hanover.....	12	500	7	6	20	600	14	8
Northampton.....	a	a	a	a	37	1,000	15	12
Onslow.....	2	2,500	0	0	6	1,700	2	2
Orange.....	4	512	2	1	32	2,052	12	14
Pamlico.....								

a. No data given.

Condition of Jails and Poor-houses by Counties for June, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	4	a	2	3	2	a	2	1
Perquimans.....								
Person.....	7	a	a	a	31	1,866	a	5
Pitt.....								
Polk.....								
Randolph.....	7	905	2	a	24	791	6	9
Richmond.....	14	648	1	1	14	1,300	2	0
Robeson.....	9	735	a	a	9	800	a	a
Rockingham.....	14	810	a	9	55	518	a	12
Rowan.....	14	550	0	4	19	1,917	2	1
Rutherford.....	20	342	8	6	26	720	8	4
Sampson.....	1	a	a	a	21	a	a	a
Stanly.....								
Stokes.....								
Surry.....								
Swain.....	a	a	a	a	a	a	a	a
Transylvania.....	0	1,296	0	0	4	2,000	2	2
Tyrrell.....	0	1,100			2	1,000	a	0
Union.....	6	2,000	a	2	15	3,000	a	1
Vance.....	2	5,044	2	1	13	13,208	1	4
Wake.....	14	1,933	a	a	50	a	a	a
Warren.....								
Washington.....	3	960	2	2	7	720	3	2
Watauga.....	1	500	a	a	5	1,650	5	3
Wayne.....	9	896	a	a	16	1,650	a	a
Wilkes.....								
Wilson.....	2	5,859	0	0	26	980	2	3
Yadkin.....								
Yancey.....	1	2,304	a	1	a	a	a	a

a. No data given.

Meteorological Report for June, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.				Prevailing wind.	
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.		
Chapel Hill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chat'oga, Tenn.	70.8	87.0	16	39.0	1	48.0	18.6	33	1	11.0	20	6	11	13	4.16 N. E.	
Charleston, S.C.	75.0	95.0	19	51.0	1	44.0	17	24.0	a	7.0	a	7	7	16	5.96 S.	
Charlotte.....	71.2	94.0	21	45.0	1	49.0	19.8	31.0	7	6.0	28	7	9	14	10.54 S.	
Columbia, S. C.	76.8	96.5	19	47.0	1	49.5	a	a	a	a	a	6	8	16	4.02 S.E.	
Hatteras	73.0	84.0	20	58.0	2	26.0	8.0	14.0	4	3.0	26	11	7	12	14	11.91
Kitty Hawk.....	b	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knoxv'le, Tenn	69.0	88.0	18	44.0	1	44.0	20.0	31.0	a	11.0	a	4	18	8	5.57 S. W.	
Lynchburg, Va..	70.2	92.0	20	45.0	2	47.0	18.6	30.0	7	9.0	25	0	17	13	3.82 N. W.	
Norfolk, Va.....	72.8	94.0	20	55.0	2	39.0	14.8	23.0	7	5.0	24	2	13	15	4.75 S.	
Raleigh	72.6	93.0	20	49.0	2	44.0	19.0	29.0	a	7.0	a	5	9	16	9	10.44
Southport.....	76.2	87.0	20	58.0	1	29.0	17.7	22.4	7	6.7	11	9	10	11	6.62 S.W.	
Wake Forest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	71.2	93.0	20	58.0	1	35.0	12.0	20.	a	4.0	a	6	11	13	6.03 S.W.	

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C .....	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn	30.6	30.30	24	29.83	17	.47
Charleston, S. C	31.08	30.31	15	29.75	18	.56
Charlotte, N. C	30.08	39.36	24	29.81	5	.55
Columbia, S. C.	a	a	a	a	a	a
Hatteras, N. C	30.11	30.36	15	29.76	18	.60
Kitty Hawk, N. C.....	b	b	b	b	b	b
Knoxville, Tenn	30.07	30.11	24	29.76	4	.65
Lynchburg, Va	30.09	30.34	24	29.86	4	.48
Norfolk, Va	30.06	30.37	24	29.72	12	.65
Raleigh, N. C	30.07	30.33	24	29.74	4	.99
Southport, N. C.	a	a	a	a	a	a
Wake Forest, N. C .....	.....	.....	.....	.....	.....	.....
Wilmington, N. C	30.08	30.32	15	29.74	18	.58

a. No data given. b. Observer absent on special duty, and too many observations missed for practical purposes, or to make deductions.

Mortuary Report for June, 1889.

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NO. 5.

Relation of Diseases of Domestic Animals to Man.

The question of the inter-communicability of diseases, to and fro, between mankind and domestic animals, is, at the present time, receiving vastly more attention than at any time previous in the history of pathological (disease-study) investigation.

In addition to the scores of eminent scientists of the highest attainments in the study of diseases, expert in the manipulation of the microscope, and of the most advanced acquirements in biological (life-study) investigations, working in private laboratories with the most thoughtful care and precision in the endeavor to avoid fallacious results, there are numerous universities and higher institutions of learning in America and in Europe, having more or less extensive laboratories fitted with the most recent and most useful appliances for pathological and biological work, and in charge of earnest and able and considerate workers.

The relation of animal diseases to the public health in their various bearings are having and

will have ample investigation in these different laboratories, and facts of the utmost importance will ultimately be brought to light. It is now known that glanders, kine-pox, trichinosis and tuberculosis are transmissible from the brute animals to man. Many facts are known which point to the possibility, if not the probability, that sralet fever may be communicated from milch-cows to mankind, by immediate contact and through the medium of milk. During the prevalence of diphtheria, it has been observed in some instances, that domestic fowls and cats are affected with a disease of the throat, attended with some fever and great debility and with large fatality. There are a number of diseases of domestic animals which have many symptoms in common with the diseases of mankind, and if not identical, they at least approximate very nearly thereto.

Upon this line of research, a most extensive field of pathological investigation is open, and the results of extended inquiry and observation are looked forward to with the most anxious interest.—*The Monthly Bulletin R. I. Board of Health.*

Vaccination.

That obtuse fraction of the community which prides itself upon blind opposition to vaccination might be moved to a more liberal attitude on the subject if it would condescend to look into the results that have been reached under its practical application. In Paris, for instance, where the law requiring vaccination is feebly enforced, the mortality from small-pox ranges from 136 to 10.1 to the 100,000 inhabitants, while in the principal German cities, where the vaccination laws are rigidly enforced, the death-rate is but 1.4 to the 100,000 inhabitants. London, under compulsory vaccination, has a death-rate from small-pox of but 0.6 to the 100,000 inhabitants. On the other hand, in the Canton of Zurich, in Switzerland, since the compulsory vaccination law was repealed in 1883, the death-rate from small-pox has risen steadily from 8 to 85 to the 100,000 inhabitants.—*Analyst.*

THE COST of the epidemic to San Francisco, consequent upon the neglect of vaccination which led to it, and the public expense involved to meet the emergency, is estimated by Dr. Herrick to have been nearly \$50,000. In addition to this the steamship companies declare their extra expenses in quarantine and otherwise, during the period of May 1, 1887, to June 30, 1888, to amount to about \$200,000. The total loss to the city and to the steamship companies considerably exceeds \$300,000. Such epidemics and such expenses are the legitimate fruit of purblind negligence of timely sanitary measures.—*The Sanitarian.*

Preventing Consumption.

The New York City Board of Health has issued the following rules to be observed for the prevention of the spread of consumption: Pulmonary tuberculosis (consumption) is directly communicated from one person to another. The germ of the disease exists in the expectoration

of persons afflicted with it. The following extract from the report of the pathologists of the Health Department explains the means by which the disease may be transmitted: "Tuberculosis is commonly produced in the lungs (which are the organs most frequently affected) by breathing air in which living germs are suspended as dust. The material which is coughed up, sometimes in large quantities, by persons suffering from consumption, contains these germs often in enormous numbers. * * This material when expectorated frequently lodges in places where it dries, as on the streets, floors, carpets, handkerchiefs, etc. After drying in one way or another, it is very apt to become pulverized and float in the air as dust." By observing the following rules the danger of catching the disease will be reduced to a minimum: 1. Do not permit persons suspected to have consumption to spit on the floor or on cloths, unless the latter be immediately burned. The spittle of persons suspected to have consumption should be caught in earthen or glass dishes containing the following solution: Corrosive sublimate, 1 part; water, 1,000 parts. 2. Do not sleep in a room occupied by a person suspected of having consumption. The living-rooms of a consumptive patient should have as little furniture as practicable. Hangings should be especially avoided. The use of carpets, rugs, etc., ought always to be avoided. 3. Do not fail to wash thoroughly the eating utensils of a person suspected of having consumption as soon after eating as possible, using boiling water for the purpose. 4. Do not mingle the unwashed clothing of consumptive patients with similar clothing of other persons. 5. Do not fail to catch the bowel-discharges of consumptive patients, with diarrhoea, in a vessel containing corrosive sublimate, 1 part; water, 1,000 parts. 6. Do not fail to consult the family physician regarding the social relations of persons suffering from suspected consumption. 7. Do not permit mothers suspected of having consumption to nurse their offspring. 8. Household pets (ani-

mals or birds) are quite susceptible to tuberculosis; therefore, do not expose them to persons afflicted with consumption; also do not keep, but destroy at once, all household pets suspected of having consumption, otherwise they may give it to human beings. 9. Do not fail to thoroughly cleanse the floors, walls, and ceilings of the living and sleeping rooms of persons suffering from consumption at least once in two weeks. Ten thousand copies of the report were ordered to be printed for distribution.—*Medical Record.*

A Word to the County Superintendents of Health.

We feel it our duty to call the attention of some of the County Superintendents of Health to the meagerness of that part of their report relating to "public buildings," under which head some make no report at all, while others only a partial report, and the percentage of Superintendents making report in full is very small. These remarks do not, therefore, apply to them, but to the others, who know they are not doing their duty. In a few instances, a diagram of the jail, with its cubic space, and some with only the dimensions of the cells, has been sent to the Secretary, and some who habitually simply write, "*see former reports.*" The Superintendent, instead of giving each month the space in cubic feet allotted each inmate of jail and poor-house, seems to be satisfied with merely stating the number of inmates in each, referring the Secretary to the diagram sent, or, as above, to "*see former reports,*" that he may figure it out himself or hunt up the desired information as best he may. We would say to such Superintendents, that their reports are filed away (after extracts have been made therefrom for publication in the BULLETIN) for future reference, and if the Secretary had to look back over the reports from every such Superintendent for nine or ten months to find the report containing the desired diagram or information, it would be an endless task, and

certainly the BULLETIN would be published much later than necessary.

We would suggest that the measurement of each room and cell in the poor-house and jail, in each county, in which persons are confined or kept, be taken in cubic feet and a record kept of same. Then, by dividing the number of cubic feet in the room or cell by the number of persons confined therein, you have the space allotted to each to be inserted in your monthly report to the Secretary of the State Board of Health. In this way your report will be accurate without being put to the inconvenience of measuring the room or cell whenever there is a change in the number of inmates or prisoners.

A good many Superintendents make no report on the number of inmates giving evidence of successful vaccination, and the number which can read and write. There can be no excuse for not making the "Report on Condition of Public Buildings" correctly and in full, except a failure on the part of the Superintendent to do his duty. He may not be able to make perfect reports on the diseases occurring in the county on account of the non-co-operation of the county profession, but the report on the public buildings comes within his individual work, and he should not neglect it.

All North Carolina Physicians must Register in the Office of the Clerk of the Superior Court before January 1st, 1890.

We hereby remind our readers that all persons entitled to practice medicine in this State must register in the office of the Clerk of the Superior Court of his county, according to the law, a copy of which has been mailed to every doctor whose address could be found. Read the law carefully and go at once to perform this duty, as neglect to do so, even in the case of one entitled to practice, will put him in the unpleasant position of being an illegal practitioner, and necessitate his going before the Board of Examiners for a license to practice.

We do not think it necessary to define who

may register legally, when the printed law sets it forth so distinctly, but we urge on all to register at once.

The first license issued under the new law was issued by S. Van-Amringe, C. S. C., to the senior editor of the *Journal*, bearing date 3d of May, 1889. Several Wilmington physicians are of nearly the same date.—*N. C. Medical Journal*, July, 1889.

Election of Superintendent of Health.

We have received numerous inquiries as to when the election of Superintendent of Health should take place in counties already having Boards of Health, and for their information and others we herewith give the law upon the subject as amended in *The Code of 1885*.

Section 7, of "*An Act Relating to the Board of Health*," says: "The biennial meeting for the election of officers shall, after the meeting of organization, be for the county boards on the first Monday in September, and of the State Board of Health on the second day of the annual meeting of the Medical Society of North Carolina."

Excerpts from the Transactions of the N. C. Sanitary Association, 1889.

If we study the history of modern towns we will be struck by the fact that a public water supply has generally followed a more or less destructive conflagration. The resulting loss of property has induced property-owners to take precautions against such calamities in the future. The average man will freely tax himself to insure the safety of his house and worldly goods, while he intrusts the lives and health of himself and family to the mercy of Providence. If Providence will preserve from disease and death, why will He not protect from fire? Which is the worse misfortune, to have a house burned down, or to see wife and children die of a preventable disease?—*Dr. H. T. Bahnson*, in "*The Public Water Supply of Towns and Cities in North Carolina*."

It appertains as well to the proper presentation of our subject to say that the first duty of the officials charged with the care of the health of a community in times of danger, and preparing for inland quarantine, is the thorough cleansing of the towns. It is a fact that is beyond contradiction that it too often requires the approach of danger, in the shape of mortal disease, to stir up the energies of health officers to the full performance of their duty, and great good is the result that follows in the wake of a settling panic. As this duty is one that is constant, its performance should need no word of advice to spur it up, nor should it be difficult of accomplishment, as the means and the measure should be well known. It is sad commentary on the work of superintendents of health and their officers that it should be necessary to say this much, but its truth should start them into the fulfilment of the labors of their position, and the reminder be robbed of any unpleasantness by any benefits that may follow it. When the barriers that an inland quarantine imposes are set up, there is need for careful consideration for all the interests involved. Of course, the first care of the quarantinist is for the lives and health of the community under his charge, and to this all other interests must yield. But this must be so regulated as to offer as little embarrassment to trade and traffic over railroads, water-ways and through the country as is compatible with securing the first and main object of his office. He must adopt such laws as will be just and equitable, and enforce them with the severity of military discipline. The hardships that will follow this unfailing application of regulations will diminish as they come to be understood and appreciated, and gross errors can hardly happen when the officials are governed by good judgment and strict performance of duty.—*Dr. George G. Thomas*, in "*Inland Quarantine*."

In the great book of nature we are taught that extreme dangers attend the accumulation of filth within communities of human habita-

tions. We are taught that the products of the vegetable kingdom, having once served the uses of man as food, and having passed from the body as the waste product of the animal kingdom, has become a deleterious substance, unfit for the uses or surroundings of mankind, at least until it has been given an opportunity of passing through nature's transforming cycle, to reappear as vegetable matter fit again for the support of the animal kingdom.

This simple lesson has been sadly demonstrated in many cases of preventable sickness, deaths and serious epidemics, until at last it is to be hoped that the necessity of filth removal and disposal has become fully realized by every intelligent thinking human being. It affords me extreme pleasure to reasonably assume that this is emphatically the case with such an audience upon such an occasion as this, so that I may confine myself to the essential object of my theme, the *economic disposal*, after removal has been accomplished. I shall endeavor to present the subject from a thoroughly sanitary standpoint, believing as I do firmly that no method that is insanitary is economical.

The filth to be removed and disposed of may be comprehensively classified as *Sewage* and *Garbage*. By Sewage is understood the animal excretions and the fluid and semi-fluid refuse of the abodes of mankind and of factories. By Garbage is embraced the solid animal and vegetable refuse of dwellings, stores and other abodes, such filth as is common in the street-sweepings, ash-barrels and market refuse.

The substance of sewage and garbage being radically different in their composition, are subject to very different methods of disposal, though some methods are measurably applicable to both, and in some cases the two may be operated upon in combination.—*J. L. Ludlow, C. E., in "How Can we Best Secure Economical Disposal of Refuse in our Towns?"*

The act regulating the duties of this important office may be briefly summarized:

It shall be his duty to collect vital statistics, to make medico-legal post-mortem examinations for coroners' inquests, to attend prisoners in jail, poor-house and house of correction, and to make examination of lunatics for commitment. He shall be the sanitary inspector of the jail and poor-house of his county, making monthly statements to the board of commissioners. The duties are further enlarged and the responsibilities increased so as to bring, with the advice of the local board of health, the important matter of inland quarantine under his control. Diseases dangerous to public health, viz., small-pox, scarlet fever, yellow fever, and cholera, are to be quarantined and isolated at the expense of the county, town or city in which they occur. It shall be his duty to abate nuisances; and finally, the important matter of vaccination is committed to his care.

The field thus outlined is broad enough, and the soil sufficiently fertile to invite occupancy, with a promise of a rich harvest, not alone to the physician and sanitarian, but as well to the philanthropist and public-spirited citizen.

The system of medical and sanitary inspection, as applied to our jails, almshouses and houses of correction, has already yielded fruits of a most gratifying character, and the increased interest this matter is receiving at the hands of our superintendents, in more detailed reports to the MONTHLY BULLETIN, promises still greater results, which, from the very nature of the work, must commend it to the support of all good people throughout the State. But unfortunately, many of our counties are without health boards, and their public institutions are left without the care and superintendence of health officers.—*Dr. J. H. Tucker, in "The Duties and Responsibilities of County Superintendents of Health."*

*Review of Diseases Reported by Counties for
the Month of July, 1889.*

Blind staggers among horses was reported from Hyde.

Bright's disease of the kidneys was reported from Orange.

Bronchitis was reported from Yancey.

Cancer was reported from Iredell.

*Chicken-cholera was reported from Camden, Chatham, Nash and Richmond.

*Chicken-pox was reported from Rowan.

Cholera-infantum was reported from Orange and Yancey.

Consumption was reported from Iredell and Orange.

Cerebro-spinal meningitis was reported from Orange and Rowan.

*Diphtheria was reported from Ashe, Iredell, Person and Wake.

Dysentery was reported from Brunswick, Cabarrus, Chatham, Camden, Davidson, Duplin, Edgecombe, Franklin, Granville, Guilford, Hyde, McDowell, Montgomery, Madison, Nash, Orange, Onslow, Person, Rutherford, Sampson, Swain, Union, Washington, Warren and Yancey.

Distemper among horses was reported from Yancey.

*Epilepsy, acute, was reported from Rowan.

*Erysipelas was reported from Duplin, Yancey and Washington.

*Hog-cholera was reported from Camden, Columbus, Nash, Northampton and Richmond.

Malarial fever was reported from Alamance, Beaufort, Camden, Caswell, Chatham, Cherokee, Columbus, Cumberland, Chowan, Duplin, Gaston, Granville, Greene, Guilford, Jones, Johnston, Nash, Orange, Onslow, Pender, Rowan, Sampson, Transylvania, Tyrrell and Warren.

*Measles was reported from Forsyth, Rowan, Sampson and Wayne.

*Pneumonia was reported from Chowan, Washington and Yancey.

*Scarlatina was reported from Vance.

*Typhoid fever was reported from Alexander, Buncombe, Cabarrus, Caldwell, Chatham, Cherokee, Cleveland, Columbus, Cumberland, Chowan, Davidson, Duplin, Franklin, Forsyth, Gaston, Guilford, Henderson, Iredell, Jackson, Johnston, Lincoln, Macon, McDowell, Nash, New Hanover, Northampton, Pender, Rowan, Richmond, Sampson, Swain, Stanly, Tyrrell, Union, Vance, Watauga, Warren and Yancey.

Whooping-cough was reported from Caswell, Cherokee, New Hanover, Madison, Orange, Onslow, Rowan, Sampson and Wayne.

* NOTE.—All diseases marked thus * are considered dangerous to the public health, and should be promptly reported.

*Summary of Mortuary Statistics from Towns
for the Month of July, 1889.*

	White.	Col'd.	Total.
Aggregate population	78,885	61,915	140,800
Aggregate deaths	73	123	196
Temporary annual death rate per 1,000	10.8	22.8	16.8
Deaths under 5 years	30	53	83

Cause of Death.	White.	Col'd.	Total.
Typhoid fever	7	5	12
Malarial fever	2	8	10
Diphtheria	1	1	2
Pneumonia	0	3	3
Consumption	5	19	24
Brain diseases	7	5	12
Heart diseases	3	4	7
Neurotic diseases	4	2	6
Diarrhoeal diseases	19	27	46
All other diseases	18	44	62
Accident	1	3	4
Suicide	1	0	1
Still-born	5	2	7
Under 5 years	30	53	83
Total	73	123	196

*Summary of Reports Received from Counties
for the Month of July, 1889.*

Alamance.—Dr. George W. Long, Graham. The poor-house and court-house are in good sanitary condition; that of the jail is not very good—building needs attention. Mild catarrhal and malarial fevers, with now and then a case of dysentery. Our domestic animals are free from disease.

Alexander.—Dr. H. McD. Little, Taylorsville. The general sanitary condition of the county is good. Very little sickness reported. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the jail is good; no sickness among the prisoners. The sanitary condition of the poor-house is not good. The water used at both jail and poor-house is well-water.

Alleghany.—Dr. George Daughton, Sparta. The sanitary condition of the county has been very good during the past month—very little sickness of any kind; roseola has prevailed in some portions. There has been an epidemic of chicken-cholera. The sanitary condition of the jail is as good as usual; that of the poor-house is good.

Ashe.—Dr. J. W. Colvard, Jefferson. The general sanitary condition of the county is good, with the exception of the continual wet weather, which we have had since May. There has been no epidemic of any nature among domestic animals. The general sanitary condition of the public buildings is good; nothing is being done at present to better said condition.

Anson.—Dr. E. F. Ashe, Wadesboro. No report received.

Beaufort.—Dr. W. A. Blount, Washington. There has been some increase in sickness, principally of a malarial character. There has been no epidemic among domestic animals. The Board of Magistrates have decided neither to repair nor rebuild the jail for the present.

Bertie.—Dr. H. V. Dunstan, Windsor. The sanitary condition of the county is good—it is unusually healthy. Excessive rains have flooded the county. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is very good.

Bladen.—Has no Board of Health.

Brunswick.—Dr. D. B. McNeill, Supply. Dysentery has prevailed in nearly all portions of the county. No efforts have been made at improvement of our public buildings.

Buncombe.—Dr. H. B. Weaver, Asheville. A few cases of typhoid fever of a very mild type have been reported in different portions of the county; no deaths therefrom as yet. Some few cases in this city—cause, bad sanitary condition. There is no city health officer. There has been no epidemic of any kind among domestic animals. All of the public buildings are in excellent sanitary condition. No deaths have occurred, so far, this year, in either institution. We now have complete, separate apartments in poor-house for each race.

Burke.—Dr. J. L. Laxton, Morganton. No report received.

Cabarrus.—Dr. Robert S. Young, Concord. The general sanitary condition of the county is good, although an epidemic of dysentery has prevailed in all portions, and there were thirteen cases of typhoid fever reported. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Caldwell.—Dr. Robert L. Beall, Lenoir. The general sanitary condition of the county is fair, but excessive wet weather has caused unusual dampness in houses and cellars, and many wells are kept muddy by surface water. About twenty-five cases of typhoid fever have been reported, and I think it safe to assume that there are more unreported, still there is nothing like an epidemic, there being three neighborhoods affected and not more than ten to fifteen in a

locality. There has been no epidemic of any kind among domestic animals. The sanitary condition of the jail is not very good; two prisoners in the cage room have air, space and ventilation sufficient, while three (women) confined in one room have only four hundred and thirty cubic feet each and but one opening for ventilation, about three feet square; the air is confined and the odor unpleasant.

Camden.—Dr. Ed. B. Ferebee, Belcross. The sanitary condition of the county is good for this season of the year, although bilious fever and dysentery have prevailed more or less in all portions. There has been an epidemic of cholera among domestic animals. The general sanitary condition of the public buildings is very good.

Carteret.—Dr. M. F. Arendell, Morehead City. The general sanitary condition of our county is very good. There has been no epidemic of any kind among domestic animals. Our public buildings are old but in good condition; we need a new jail.

Caswell.—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county is very good, but we have had so much rain that I am afraid it will cause much sickness. Remittent and intermittent fever has prevailed and a few cases of whooping-cough have been reported. The sanitary condition of the public buildings is very good; the poor-house is in fine condition; we have the finest and handsomest court-house in the State. Very few physicians have sent in their reports for last month—very little interest taken in it, I am sorry to say.

Catawba—Dr. J. M. McCorkle, Newton. No report received.

Chatham.—Dr. L. A. Hanks, Pittsboro. The general sanitary condition of the county is good, as far as known, but there is considerable sickness in our county, dysentery, malarial and typhoid fevers being the prevailing diseases. There has been an epidemic of chicken-cholera in one or two neighborhoods. The

sanitary condition of the public buildings is good.

Cherokee.—Dr. J. F. Abernathy, Murphy. The health of this county is reasonably fair, that of the town not so good; we have had eighteen cases of remittent bilious fever, three of whom assumed the typhoid type and one died; two cases of whooping-cough; no other diseases of any gravity to my knowledge. The sanitary condition of the public buildings is fair; no effort at improvement. The system of sewerage from the jail is very defective, the contents of the pipe being discharged too near the well.

Chowan.—Dr. R. W. Winborne, Barnitz. There have occurred a few cases of diarrhoea and dysentery; one case of uræmic convulsions; one of pneumonia, and a few isolated cases of rheumatism. There has been no epidemic among domestic animals. There has been no noteworthy change in the sanitary condition of the public buildings since last report; they are being kept clean.

Cleveland.—Dr. J. C. Gidney, Shelby. The general sanitary condition of the county is very good; no particular diseases have prevailed in any portion; the eight cases of typhoid fever are from different sections of the county, and some of them from among farmers; no epidemic of fever in any town. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is about the same as heretofore reported.

Clay.—Has no Board of Health.

Columbus.—Dr. Isaac Jackson, Whiteville. The general sanitary condition of the county is good, but there have been four cases of typhoid fever in the village, and I hear one family has it, or some of the members of a family living below here; the truth of it I cannot vouch for; I also hear of cases of intermittent fever in some sections of the county, but no deaths. There has been an epidemic of hog-cholera in some portions of the county. The sanitary condition of the public buildings is good.

Craven.—Dr. Leinster Duffy, Newbern. The sanitary condition of the county is about as good as could be expected; heavy rains continuing throughout the month, filling wells with surface water and overflowing lowlands, have contributed largely to dysenteric and miasmatic troubles in certain localities. We have had five cases of typhoid and malarial fever and one case of diphtheria. The general sanitary condition of the poor-house and jail is good.

Cumberland.—Dr. James A. Hodges, Fayetteville. The health of the county has generally been good; but a few cases of typhoid fever, and also some cases of malarial fever and dysentery, have been reported. The rainfall during the month has been large, being 14.04 inches; while for the month of June it was only 5.03 inches. On the morning of the 27th ult., the rain-fall in one hour and ten minutes was 3.84 inches. The mean temperature for the month was 76.9° F., and the mean relative humidity was 86. per cent. There has been no epidemic among domestic animals. The public buildings are in first-class sanitary condition, as will be seen from the appended report of the Grand Jury at the July term of Court just ended:

"The Grand Jury would respectfully report to the Court as follows:

"**THE JAIL**.—As far as we are able to discover, the jail is in a good condition. Everything appears clean and neat, and the prisoners are well provided for. In some of the smaller cells, there is some evidence of imperfect ventilation, owing, however, to the original plan of the building and not to any cause within the control of the officers. Apart from a little carpenter and masonry work necessary on the door of the main entrance, we noticed nothing that required especial attention.

"**THE POOR-HOUSE**.—A committee, appointed to visit and examine the poor-house, were especially pleased with its appearance and management. The inmates appeared cheerful and contented and showed every evidence of kind and thoughtful attention."

Currituck.—Dr. F. W. Ritter, Moyock. No sickness and no report to make for month of July.

Davie.—Has no Board of Health.

Davidson.—Dr. R. L. Payne, Jr., Lexington. There is much less sickness than is usual at this season of the year; although a few cases of typhoid fever are scattered over the county, and since the wet weather set in, dysentery, so prevalent in June, has re-appeared. No reports from brother physicians. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings remains unchanged since my last report.

Duplin.—Dr. James W. Blount, Kenansville. The sanitary condition of the county is not good; a considerable number of cases of intermittent, remittent, malarial and typhoid fevers have been reported; also several cases of erysipelas; dysentery and diarrhoea have prevailed in nearly every portion. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good. There is but little sickness among the paupers.

Durham.—Dr. N. M. Johnson, Durham. The sanitary condition of the county is good. There is about the usual amount of sickness, and of the ordinary kind. There has been no epidemic of any kind among domestic animals. The healthfulness of the public buildings is fairly good, with efforts to make it as near perfect as possible.

Edgecombe.—Dr. Julian M. Baker, Tarboro. The general sanitary condition of the county is good; however, diarrhoea and dysentery have prevailed in all portions.

Forsyth.—Dr. D. N. Dalton, Jr., Winston. The general sanitary condition of the county is good, although a few cases each of measles and typhoid fever have been reported. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is good.

Franklin.—Dr. E. S. Foster, Louisburg. There has been a considerable number of cases of typho-malarial and some of typhoid fever; dysentery has prevailed quite extensively in the northern portion of the county. There has been no epidemic among domestic animals. No change in the sanitary condition of the public building to note since my last report.

Gaston.—Dr. E. B. Holland, Dallas. Typhoid and malarial fevers have prevailed in most portions of the county. There has been no epidemic among domestic animals.

Gates.—Has no Board of Health.

Graham.—Has no Board of Health.

Granville.—Dr. J. M. Hayes, Oxford. The general sanitary condition of the county is very good. Dysentery has nearly disappeared. Malaria is asserting itself rather tardily. No cases of typhoid fever reported, though there may have been cases. Our physicians do not make reports except as to deaths in the town of Oxford, which is now required by law. There has been no epidemic of any kind among domestic animals. Our public buildings are in excellent sanitary condition.

Greene.—Dr. W. C. Galloway, Snow Hill. Malarial fever is prevailing nearly all over the county. Our public buildings are in very good sanitary condition.

Guilford.—Dr. R. W. Tate, Greensboro. The general sanitary condition of the county is fair for this month, considering the incessant and continuous rains, although malarial fever and gastro-intestinal troubles have prevailed in portions of the county. There has been no epidemic among domestic animals. The sanitary condition of the poor-house is good; the inmates are well cared for. The sanitary condition of the jail is as good as it could be under existing circumstances.

Halifax.—Has no Board of Health.

Harnett.—Has no Board of Health.

Haywood.—Dr. R. L. Allen, Waynesville. No report received.

Henderson.—Dr. L. L. Johnston, Angeline. The general sanitary condition of the county is good, but there have been five cases of fever reported; no deaths. The sanitary condition of jail and poor-house is very good. Builders are at work, and we hope to soon be able to report one of the best poor-houses in the State.

Hertford.—Has no Board of Health.

Hyde.—Dr. Edward Clark, Middleton. The high winds that have prevailed by day and night during this season have dispersed and destroyed malarial emanations. There are no cases of the remitting, bilious or congestive intermitting fevers to report, but bowel troubles among children have been frequent, but not unusually so. No contagious diseases have prevailed in any portions of the county. There has been no epidemic of any kind to report among domestic animals, except several deaths among horses by staggers. The healthfulness of the inmates show that the public buildings are well kept.

Iredell.—Dr. M. H. Hill, Statesville. There are a number of cases of typhoid fever in different localities in the county, also remittent and intermitting fever and one case of suspected diphtheria. There has been no epidemic of any kind among domestic animals. The public buildings are in pretty fair condition; no sickness in either jail or poor-house; nothing doing for the improvement of either place.

Jackson.—Dr. J. M. Candler, Dillsboro. The general sanitary condition of the county is very good. There has been no epidemic among domestic animals. The sanitary condition of the public buildings will soon be good.

Johnston.—Dr. L. L. Sasser, Smithfield. The general sanitary condition of the county is very good, but gastro-intestinal and malarial troubles have prevailed in these portions; there have been ten cases of typhoid fever reported. There has been a slight epidemic of hog-cholera; two fine mules belonging to one farmer died of pneumonia, or "lung fever," as was

shown by post-mortem examination, no cause could be ascertained, real or otherwise. The sanitary condition of the public buildings is very good; there was not a single case of illness in either poor-house or jail that required any treatment.

Jones.—Dr. Charles B. Woodley, Trenton. The general sanitary condition of the county, so far as can be learned, is very good; no sickness except a few cases of intermittent fever of a mild type. The sanitary condition of the public buildings is good. There has been no sickness in them for some time; the inmates are furnished sufficient amount of wholesome food and water; none give evidence of successful vaccination, nor can they read or write.

Lenoir.—Has no Board of Health.

Lincoln.—Dr. W. L. Crouse, Lincolnton. The general sanitary condition of the county is good, but typhoid fever has been reported. There has been no epidemic among domestic animals. The sanitary condition of the poor-house is good; there has been one case of typhoid fever in the jail; no improvement except in cleanliness and in use of disinfectants.

Macon.—Dr. J. M. Lyle, Franklin. The general sanitary condition of our valley is good; in the coves and outskirts of the county there has been a good deal of typhoid fever. There has been no epidemic of any kind among domestic animals.

McDowell.—Dr. J. H. Gilkey, Marion. The general sanitary condition and health of the county has been very good, but typhoid fever and dysentery have prevailed to a limited extent, with but little sickness of any other kind. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is very good.

Madison.—Dr. James K. Hardwicke, Marshall. There has been an epidemic of dysentery in some parts of the county in an aggravated form, there being between fifty and sixty cases reported, with five deaths; there have been twenty cases of whooping-cough reported.

There have been two additional rooms added to the jail for prisoners; at one time, during the term of court just held there were sixteen prisoners crowded in one small room, but when attention was called to the matter, the Judge and commissioners ordered them separated.

Martin.—Dr. W. H. Harrell, Williamston. The sanitary condition of the county is extremely bad on account of so much rain and freshets; dysentery and malarial fever has prevailed in nearly all portions of the county. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Mecklenburg.—Has no Board of Health.

Mitchell.—Has no Board of Health.

Montgomery.—Dr. W. A. Simmons, Troy. Dysentery has been the leading disease for the last three months, and worse through July than previously; I called it flux in my last report. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good enough, considering our circumstances.

Moore.—Has no Board of Health.

Nash.—Dr. George W. Lewis, Spring Hope. The sanitary condition of the county is fairly good, but have had typhoid and typho-malarial fevers; in addition to the just mentioned fevers, we have had some dysentery and remittent fever. There has been an epidemic of cholera among domestic animals in some portions of the county. The poor-house and jail are in good condition; the inmates have good food and water served them; there is no effort at improvement in the sanitary condition of the public buildings.

New Hanover.—Dr. F. W. Potter, Wilmington. The county has for the last month enjoyed good health, but slight catarrhal troubles are prevalent in some portions bordering on the seashore. There have been several cases of typhoid fever and one of whooping-cough reported. In the mortuary report for the city, the deaths among the whites is not

great, but among the colored it runs up too high. We would like to know the reason, and remedy it so far as it is in our power so to do. Consumption seems to carry off more than any other disease. I presume their want of proper nourishment and cleanliness, etc., are causes, as also syphilis, which is very common among them; many of them are reduced to a very low degree of vital energy before applying for medical aid. The colored people are coming to our town relatively more rapidly than to any of our interior towns. Of the number of deaths reported for July, a considerable portion of them had been in the city but a short time, and a number of them were not even seen by a physician. The greater number of deaths reported were not due to diseases peculiar to our location or climate. I was told, a few days ago, by an old colored woman (afflicted with dropsy) that my medicine would not reach her case, as she had been "tricked" by her sister and I could not take the spell off; only a root doctor could do that! Superstition is more common among them than would ordinarily be supposed at this day; with the lights of religion and general educational advantages, it is strange. There has been no epidemic of any kind recently among domestic animals. There have been no improvements made in the sanitary condition of the public buildings during the last month. All the public buildings are kept in good order. No sickness in the jail or house of correction, but one case of fever in poor-house.

Northampton.—Dr. H. W. Lewis, Jackson. The sanitary condition of the county is not good; needs drainage; ditches are all filled up by the heavy rains, and in consequence there is much stagnant water. No special disease has prevailed in this or other portions of the county. There has been an epidemic of hog-cholera. The sanitary condition of the public buildings is good.

Onslow.—Dr. J. L. Nicholson, Richlands. The health of the county has improved over last month. The epidemic of dysentery is now

about over. The amount of malarial fever is unusually small for July, owing in part to almost daily heavy rains, keeping creeks and ponds flooded, and because our people are more and more learning the use of quinine as a preventive to our summer fevers. A few cases of whooping-cough have been reported. There has been no epidemic among domestic animals. The jail is in excellent sanitary condition; the poor-house is exactly the reverse—its inmates are in poor health; one died in July. No efforts being made to add to its comfort or healthfulness.

Orange.—Dr. D. C. Parris, Hillsboro. The sanitary condition of the county is not so good, owing to the continuance of rain; surface saturation is more thorough than I have ever seen, and drinking water of all kinds is badly contaminated with surface impurities. Cholera-infantum and dysentery have prevailed in all portions of the county; there have also been reported a few cases of whooping-cough. There has been no epidemic of any kind among domestic animals. The condition, sanitary and otherwise, of our poor-house has been greatly improved this year; the farm belonging to and run in connection with the poor-house is managed vastly better this year than formerly; the garden and truck patches are also far ahead of anything of the kind for several years. The inmates are supplied with vegetables and fruits in great abundance and variety; many of them do fair average labor and are well satisfied. The milk supply is quite sufficient. The ventilation, drainage, cleanliness and dietary of the poor-house are all good; and the same is true of the jail. The guard-house is in first-class condition; the court-house not so good, but efforts are being made to improve the latter. The jail inmates have good prison fare—their food being ample and varied. Almost no sickness at either jail or poor-house for past month. Efforts are being made to improve the court-house.

Pamlico.—Has no Board of Health.

Pasquotank.—Has no Board of Health.

Pender.—Dr. S. S. Satchwell, Burgaw. General good health has prevailed in this county. Not for the past twelve years has so much rain fallen in any July; the streams have risen higher during July than in the same month for at least a dozen years back; some lands are submerged to a remarkable degree, and crops, on lowlands especially, have been greatly damaged thereby. As one apparent result, there has been but little malaria and malarial diseases. There have been numerous cases of bowel diseases of children in every township, and many of them obstinate and persistent; minute doses of calomel, especially in the beginning, have generally proved an important factor in the treatment, especially if carried to the extent that the discharges from the bowels became bilious in character. There has been no epidemic among domestic animals.

Perquimans.—Has no Board of Health.

Person.—Dr. C. G. Nichols, Roxboro. The sanitary condition of the county, owing to the heavy rains, is not good, filling up the creeks and bottoms with heaps of decaying vegetable remains, though we have not had great deal of fever yet, but a great deal of dysentery and diarrhoea. There has been no epidemic of any kind among domestic animals. The poor-house is in good condition. The jail is not in good condition.

Pitt.—Has no Board of Health.

Polk.—Has no Board of Health.

Randolph.—Dr. J. W. Long, Randleman. There has been a mild epidemic of measles; no deaths and but few complications. We have had a regular scourge in the shape of jaundice; our factory people call it "yaller janders," and think it is "ketchin." This is not a malarial section. The yellowness of eyes and skin in these cases is very pronounced, there is also catarrh of stomach and upper bowel and gall ducts, disgust for food, vomiting of bilious matter, etc. The patient feels and acts as

though under the influence of a decided poison, a chill with these attacks is the exception, though I had a pronounced chill of an hours' duration. We have never had anything like the "yaller janders" in this section before. The general sanitary condition of the county is good considering the prolonged rains, the heat and rank vegetation. There have been about fifteen cases of measles reported and two of typhoid fever. There has been an epidemic of cholera among hogs around this place; it is not extensive. The sanitary condition of the jail is good, that of poor-house also, except the water-closet arrangements, there being no closets whatever, the inmates having to go to the "bushes;" this should not be.

Richmond.—Dr. W. W. Covington, Rockingham. The sanitary condition of this portion of the county is remarkably good; very little sickness of any kind. There has been an epidemic of hog and chicken cholera in my section of county. The sanitary condition of public buildings is good, except the cells at the poor-house, and yet there seems to be no effort at improvement.

Robeson.—Dr. R. F. Lewis, Lumberton. The sanitary condition of the county is fair. The county is remarkably healthy at this time. There has been no epidemic of any kind among domestic animals. The sanitary condition of public buildings is pretty good.

Rockingham.—Dr. T. E. Balsby, Reidsville. No report received.

Rowan.—Dr. J. J. Summerell, Salisbury. It has rained a great deal during July, high water in all the streams, but the health of the people has been excellent. If it should be dry during August and September, I shall look for an unusual amount of malarial disease. There has been no epidemic of any kind among domestic animals.

Dr. J. G. Ramsay, Mt. Vernon.—Reports one case meningitis, cerebral, recovered; one death from central softening; one acute epilepsy;

a few malarial cases; one case chicken-pox. No epidemic among people or animals.

Our jail and poor-house are in good sanitary condition, and there has been very little sickness of any kind.

Rutherford.—Dr. E. B. Harris, Rutherfordton. The county is very healthy indeed, no sickness except an occasional case of diarrhoea. The public buildings are in good sanitary condition.

Sampson.—Dr. John A. Stevens, Clinton. The health of the county is not good, there being a great many cases of malarial and several cases of typhoid fever, and dysentery and diarrhoea are very prevalent; whooping-cough and measles are epidemic in western and northern parts of county. The sanitary condition of jail is very bad; it is built in a low flat, not properly drained; the weeds cover the entire enclosure around the jail; some are five feet high. We are greatly in need of a new jail. Our poor-house is a model, its sanitary condition being all I could wish for.

Stanly.—Dr. R. Anderson, Albemarle. The sanitary condition of the county is good, so far as I can learn. There are seven physicians in the county, neither of whom have made any report. I report only what little comes under my own observation. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is moderately good; there are no efforts at improvement. Our court-house is rather dilapidated; the jail is a moderately good and safe old box. We take pretty good care of the paupers who are at the poor-house.

Stokes.—Has no Board of Health.

Surry.—Has no Board of Health.

Swain.—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county is very good; no sickness to amount to anything, except bowel troubles among children; there have also been reported three cases of typhoid fever. There has been no epidemic of any kind among

domestic animals. The sanitary condition of the public buildings is as good as could be made at present.

Transylvania.—Dr. D. H. Farmer, Brevard. There has been more sickness during July than at any other time during my service as Superintendent of Health of the county; in fact, every portion of the county is being smitten with congestive fever, and many deaths. There has been no epidemic of any kind among domestic animals reported. Our court-house is now in good condition. The sanitary condition of the jail is good, with the exception of two rooms, which are in bad order. The poor-house is in excellent condition.

Tyrrell.—Dr. Ab. Alexander, Columbia. Remittent fever of a severe type has prevailed in our county-town (Columbia). The sanitary condition of the public buildings is good.

Union.—Dr. W. C. Ramsay, Monroe. Five or six cases of typhoid fever have been reported in Monroe and some portions of the county; no deaths reported; diarrhoea has been prevalent. There has been no epidemic of disease among domestic animals. Poor-house is in good sanitary condition; that of the jail is inferior.

Vance.—Dr. A. Cheatham, Henderson. The sanitary condition of the county is good; but there has been one case of scarlatina and one of typhoid fever reported. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Wake.—Dr. James McKee, Raleigh. The sanitary condition of the city and county is good; but there have been two cases of diphtheria. There has been no epidemic of any kind among domestic animals. The sanitary condition of all the public buildings has been improved and is being improved.

Warren.—Dr. P. J. Macon, Warrenton. The sanitary condition of the county is not very good; there is more malaria in the county

than for years, due to the excessive rains, which caused much vegetable decay. Remittent and intermittent and typhoid fevers and dysentery have prevailed in all portions. The sanitary condition of the public buildings is splendid—all in thorough repair.

Washington.—Dr. W. H. Ward, Plymouth. The sanitary condition of the county is fair. I have the following cases to report: two cases of diarrhoea; one of dysentery; two of erysipelas; three of intermittent fever; twelve of remittent fever; three of typho-malarial fever; one of pneumonia; and one of rheumatism. Two physicians out of seven reporting. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Watanya.—Dr. W. B. Council, Boone. The sanitary condition of the county is good in every way; it has been a very healthy season, though there has been a great deal of rain; crops are fine, and the health of the people is better than I have ever known it to be, but there have been five mild cases of typhoid fever in Boone township. There has been no epidemic of any kind among domestic animals. The poor-house is in very good sanitary condition; since last report two very old negroes have died from old age. The new jail in course of construction will be first-class when finished.

Wayne.—Dr. James Spicer, Goldsboro. The sanitary condition of the county is good, but there have been four cases of measles and five of whooping-cough reported. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is good.

Wilkes.—We hope to receive reports from this county regularly after August, as steps are being taken towards organizing a county board of health.

Wilson.—Dr. N. Anderson, Wilson. The general health of the county is good, and as a proof that the sanitary condition of our town is excellent, refer to mortuary report for the month of July—not a single death among the white population, and only three among the colored; two of these cases were over eighty years of age; one died of consumption, aged thirty-two. I don't think there is a better kept town (sanitarily) in the State. The poor-house and jail are in excellent sanitary condition.

Yadkin.—Has no Board of Health.

Yancey.—Dr. John L. Ray, Burnsville. The general sanitary condition of the county is very good, but typhoid fever has prevailed in different portions. There has been an epidemic of distemper among horses. The present sanitary condition of the jail is very good.

Condition of Jails and Poor-houses by Counties for July, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	4	1,000	a	a	24	500	a	a
Alexander.....	3	1,249	0	2	8	550	0	0
Ashe.....	4	645	a	2	9	654	1	2
Alleghany.....	3	a	1	2	1	a	a	a
Anson.....								
Beaufort.....	9	800	a	a	13	800	a	a
Bertie.....	4	1,920	a	0	11	1,296	a	a
Bladen.....								
Brunswick.....	1	c	a	a	10	c	a	a
Buncombe.....	19	800	10	17	34	710	19	18
Burke.....								
Cabarrus.....	4	1,002	0	0	24	627	7	8
Caldwell.....	5	b	0	5	9	630	0	2
Camden.....	1	a	a	a	7	a	a	a
Carteret.....	2	860	0	0	0	a	0	0
Caswell.....	2	450	0	a	23	1,000	9	3
Catawba.....								
Chatham.....	3	2,600	1	3	20	1,400	10	10
Cherokee.....	3	2,733	a	a	a	a	a	a
Chowan.....	3	a	0	1	6	2,621	1	1
Clay.....								
Cleveland.....	9	608	a	4	45	841	a	8
Columbus.....	5	3,326	a	3	7	629	a	0
Craven.....	14	940	6	3	25	800	a	1
Cumberland.....	7	800	6	5	14	1,000	12	9
Currituck.....	a	a	a	a	a	a	a	a
Dare.....								
Davidson.....	6	1,823	0	6	23	721	0	5
Davie.....								
Duplin.....	5	a	a	a	22	a	a	a
Durham.....	9	1,000	a	4	17	1,000	a	2
Edgecombe.....	9	1,775	0	1	33	2,400	a	2
Forsyth.....	24	900	6	5	18	c	3	4

a. Data not given. b. Two have 1,430 cubic feet each, and three have 430 cubic feet each.

c. Ample (?).

Condition of Jails and Poor-houses by Counties for July, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number Inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin.....	4	5,000	a	a	19	11,626	a	1
Gaston.....	4	1,902	0	3	15	2,244	2	5
Gates.....								
Graham.....								
Granville.....	7	3,570	a	a	22	815	a	a
Greene.....	3	500	a	2	11	1,000	4	1
Guilford.....	12	600	7	9	28	1,250	19	18
Halifax.....								
Harnett.....								
Haywood.....								
Henderson.....	18	800	a	10	3	2,000	a	0
Hertford.....								
Hyde.....	a	a	a	a	a	a	a	a
Iredell.....	14	800	a	a	17	652	a	a
Jackson.....	0	a	0	0	4	2,000	a	2
Johnston.....	7	3,000	2	5	16	800	6	6
Jones.....	1	5,520	0	0	5	1,120	0	0
Lenoir.....								
Lincoln.....	9	857	a	5	29	345	a	3
McDowell.....	4	600	2	3	8	550	3	1
Macon.....								
Madison.....	20	400	0	0	6	2,100	0	0
Martin.....	4	1,000	0	0	13	350	0	4
Mecklenburg.....								
Mitchell.....								
Montgomery.....	1	500	a	1	12	500	a	a
Moore.....								
Nash.....	4	a	a	a	35	a	a	a
New Hanover.....								
Northampton.....	a	a	a	a	39	1,000	15	12
Onslow.....	2	2,500	a	a	6	1,667	2	2
Orange.....	5	512	2	2	33	2,048	15	8
Pamlico.....								

a. Data not given.

Condition of Jails and Poor-houses by Counties for July, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	8	a	5	4	4	a	3	2
Perquimans.....								
Person.....	0	a	0	0	27	1,786	a	5
Pitt.....								
Polk.....								
Randolph.....	a	a	a	a	24	a	7	10
Richmond.....	12	482	2	2	9	1,300	a	a
Robeson.....								
Rockingham.....								
Rowan.....	14	550	8	4	18	2,000	2	2
Rutherford.....	19	386	a	a	25	1,037	a	a
Sampson.....								
Stanly.....								
Stokes.....								
Surry.....								
Swain.....	0	a	a	a	0	a	a	a
Transylvania.....	0	1,300	0	0	5	2,000	2	3
Tyrrell.....	1	1,000	a	a	2	1,100	a	a
Union.....	6	2,000	a	a	15	2,500	a	a
Vance.....	3	3,399	2	2	13	13,208	a	a
Wake.....	24	1,128	a	a	50	a	a	a
Warren.....	4	2,780	a	a	13	2,460	a	a
Washington.....	3	b	2	2	3	b	2	1
Watauga.....	a	a	a	a	5	a	a	a
Wayne.....	12	856	5	7	15	1,650	6	3
Wilkes.....								
Wilson.....	4	2,929	a	a	26	982	2	3
Yadkin.....								
Yancey.....	2	1,152	0	1	a	a	a	a

a. Data not given. b. Abundant (?).

Meteorological Report for July, 1889.

STATIONS.	TEMPERATURE.								NO. DAYS.								
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
Chapel Hill.....																	
Chat'oga, Tenn.	78.4	92.0	18	63.0	29	29.0	17.6	22.0	8	7.0	25	5	13	13	14	3.33	W.
Charleston, S.C.	80.0	97.0	12	71.0	9	26.0	20.0	25.0	a	5.0	a	7	8	16	14	6.74	S. W.
Charlotte.....	78.8	96.3	12	64.1	9	32.2	18.5	28.0	9	9.0	28	8	13	10	13	8.17	S.
Columbia, S. C.	80.5	96.5	11	63.5	5	33.0	a	a	a	a	a	7	6	18	15	9.26	S. W.
Hatteras	78.0	87.0	11	67.0	17	20.0	9.0	13.0	9	6.0	5	15	7	9	16	2.26	S.
Kitty Hawk.....	78.1	100.0	10	64.0	2	.....	17.4	23.5	10	8.0	30	1	21	9	18	5.46	S. W.
Knox'vle, Tenn.	77.0	92.0	10	60.0	5	32.0	16.0	25.0	9	9.0	13	7	16	8	14	2.85	S. W.
Lynchburg, Va..	76.0	96.0	11	59.0	16	37.0	18.0	26.0	8	6.0	25	4	12	15	18	10.94	S.
Norfolk, Va.....	77.6	98.0	11	63.0	17	35.0	14.4	26.0	11	6.0	1	5	11	15	20	10.69	S. W.
Raleigh	75.4	95.0	a	61.5	a	34.5	14.0	24.0	12	10.0	4	7	18	16	17	.....	.....
Southport.....	79.6	91.3	10	66.0	7	25.3	18.8	21.5	10	2.7	6	12	6	13	18	6.22	S. W.
Wake Forest.....																	
Wilmington	79.0	94.0	10	66.0	7	28.0	13.0	23.0	a	2.0	a	6	14	11	21	11.10	S.W.

BAROMETER.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.	
Chapel Hill, N. C							
Chattanooga, Tenn	30.04	30.25	7		29.84	19	.31
Charleston, S. C	30.04	30.18	7		29.87	20	.31
Charlotte, N. C	30.04	30.24	7		29.79	19	.45
Columbia, S. C	a	a	a	a	a	a	a
Hatteras, N. C	30.06	30.25	7		29.82	20	.43
Kitty Hawk, N. C.....	a	a	a	a	a	a	a
Knoxville, Tenn	30.04	30.27	7		29.83	19	.44
Lynchburg, Va	30.01	30.26	6		29.77	20	.49
Norfolk, Va	30.02	30.26	7		29.76	15	.50
Raleigh, N. C	30.03	30.25	7		29.78	20	.47
Southport, N. C	a	a	a	a	a	a	a
Wake Forest, N. C							
Wilmington, N. C	30.04	30.22	7		29.82	20	.40

a. No data given.

Mortuary Report for July, 1889.

TOWNS AND REPORTERS.				Population.		Temporary Annual death Rate per 1,000.		Typhoid Fever.		Pneumonia.		Scarlet Fever.		Consumption.		Malaria Fever.		Brain Diseases.		Diphtheria.		Whooping-Cough.		Measles.		Diarrhoeal Diseases.		All other Diseases.		Accid't. & Violence.		Sulc'd.		Still-Born.		By Races.		By Towns		Total Deaths under 5 yrs.																																																																																																																																																																																																																																																				
		Races,		By Races	Total	By Races	Tot.	By Races	Tot.	By Races	Total	By Races	Tot.	By Races	Total	By Races	Total	By Races	Total	By Races	Total	By Races	Total	By Races	Total	By Races	Total	By Races	Total	By Races	Total	By Races	Total																																																																																																																																																																																																																																																											
Asheville.....	{ White	7,000		14.4		Dr. H. B. Weaver.....	{ Color'd	3,000	19.2	16.8		Dr. J. Scarr.....	{ White	6,000	18.0	24.6	2		Dr. N. M. Johnson....	{ Color'd	5,000	33.0	1		Fayetteville.....	{ White	4,500	9.6	12.0	1		Dr. J. A. Hodges....	{ Color'd	2,500	14.4	1		Goldsboro.....	{ White	2,800	32.4	24.0	1		J. E. Peterson, Mayor	{ Color'd	2,200	20.4	1		Henderson.....	{ White	1,785	13.2	13.2			Dr A. Cheatham.....	{ Color'd	1,715	13.2	13.2			Newbern.....	{ White	3,500	6.0	20.4	4		S Fulcher,City Cl'r	{ Color'd	4,500	31.2	2		Oxford.....	{ White	1,600	14.4	7.2			Dr. J. M. Hays.....	{ Color'd	1,700	13.2	7.2			Raleigh.....	{ White	8,000	18.0	20.4	2		Dr. Jas. McKee.....	{ Color'd	7,000	25.2	20.4	2		Salisbury.....	{ White	2,800	8.4	24.0			Dr. J. J. Summerell...	{ Color'd	1,700	4,500	49.2			Tarboro.....	{ White	1,300	26.8	28.8	1		Dr. J. M. Baker.....	{ Color'd	1,200	19.2	28.8	1		Washington.....	{ White	2,400	4.8	24.0			Dr. W. A. Blount.....	{ Color'd	1,600	51.6			Wilmington.....	{ White	9,500	13.2	25.2	1		Dr. F. W. Potter.....	{ Color'd	14,000	32.4	2		Greensboro.....	{ White	4,000	2.4	7.2			Dr. R. W. Tate.....	{ Color'd	2,900	18.0	2		Statesville.....	{ White	3,500	12.0	6.0			Dr. N. Anderson.....	{ Color'd	3,500	0.0	1			Wilson.....	{ White	2,000	0.0	9.6			Dr. D. C. Parris.....	{ Color'd	1,500	24.0	1			Monroe.....	{ White	2,000	6.0	9.6			Dr. W. C. Ramsay.....	{ Color'd	300	39.6	1			Salem—C. B. Pfohl, City Clerk.....	{ White	2,500	43.2	39.6	1		Dr. P. J. Macon.....	{ Color'd	500	24.0	1			Warrenton.....	{ White	1,050	10.8	6.0			Dr. W. W. Covington	{ Color'd	950	0.0	6.0			Reidsville.....	{ White	2,400	1	2			Dr. T. E. Balsley.....	{ Color'd	1,200	3,600	1			Lincolnton.....	{ White	600	0.0	0.0			Dr. W. L. Crouse.....	{ Color'd	400	1,000	0.0			Plymouth	{ White	700	0.0	0.0			Dr. W. H. Ward	{ Color'd	800	1,500	0.0		

ELISHA MITCHELL SCIENTIFIC SOCIETY,

CHAPEL HILL, N. C.

BULLETIN

OF THE

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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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VOL. IV.

SEPTEMBER, 1889.

NO. 6.

Guilty of Misdemeanor and Liable to Fine and Imprisonment for Practicing without a License.

The law regulating the practice of medicine, as now amended, may have points in it about which the Supreme Court may have to give its opinion, but the plainest matter, which any one can understand without the aid of the Supreme Court, is, that those applicants who failed to secure the license of the Board of Examiners, at their last session, and those persons whose licenses have been revoked, or who, having temporary license, failed at the next regular meeting of the Board to secure a full license, are guilty of a misdemeanor. In every community where such persons are practicing illegally, the grand jury of the county ought to be notified, in order that the person calling himself "doctor" without the authority of the law should be dealt with promptly.

We hold that there is now no excuse for illegal practice. The State has shown every consideration for the unprepared, practically declaring an amnesty, in one sense, to many

men who should not be admitted to practice, but for fear of colliding with the presumed principle that the State has no right to pass a retroactive law, the State has now exhausted all of its expedients, its tender solicitude for the unfortunate doctors who are unqualified (ignoring in the meantime the dangers and risks to the lives of the more unfortunate patients of these same doctors), and now stands with the profession in the attitude of waging a war against those men who still persist in violating the plainest terms of the law.—*N. C. Medical Journal*, July, 1889.

Delinquent Superintendents.

We would respectfully call the attention of delinquent superintendents of health to section 8 of The Code, relating to the State Board of Health, and request their earnest consideration of the same:

"Sec. 8. Monthly returns of vital statistics upon a plan to be made by the county superintendent of health, and a failure to report by

the tenth of the month of the preceding month shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health."

Excerpts from the Transactions of the N. C. Sanitary Association, 1889.

Cholera is a specific diarrhoea. Originating along the water-courses in India, where it is always endemic, its germs are carried by travel and commerce to all parts of the world. We know that it is especially transmissible by water, and the latter may be contaminated either directly by choleraic excreta, or by the absorption of the exceedingly volatile germs from the atmosphere. So rapid is their dissemination that neither natural nor artificial filtration can be depended upon during the prevalence of this virulent disease. In an epidemic of cholera, no water should be drunk which has not been thoroughly boiled, passed through a reliable filter, and kept in an air-tight vessel. Boiling destroys the germs of the cholera by coagulating the albuminoids. Filtration deprives it of these coagulated albuminoids, and restores its sapidity by replacing the air expelled in boiling. If it were possible to adopt generally the same precautions at all times, the cases of sickness and death caused by unwholesome water would be reduced to a minimum. Under the influence of a cholera scare, no expense, no sacrifice of comfort or convenience is thought too great to be rendered as a free-will offering at the shrine of this awe-inspiring Moloch. But cholera rarely visits our favored shores, and by a rigorous enforcement of quarantine regulations, we can entirely escape its ravages.

We read with horror of the desolation wrought by it a year ago in Italy and Spain; of cities decimated and abandoned by their terror-

stricken inhabitants; of villages and whole districts depopulated, the living unable to care for the sick or bury the dead. We note with indignant amazement the squalor and filth, the unsanitary conditions which aided the dissemination and augmented the fatality of the pestilence, and, with Pharisaical complacency, we thank God that we are not as other men are.

We deliberately close our eyes to the fact that our country is constantly ravaged by diseases even more fatal, and quite as much due to filth as is cholera, for their origin and dissemination.

Foremost amongst these are diphtheria and typhoid fever. Both are produced by specific organic principles. Rotting garbage affords development to the germs of diphtheria, while the poison of typhoid fever has its origin in decomposing human excrement. The former is frequently, and the latter is almost invariably, conveyed into the system by drinking water. The deaths in this country every year from these two diseases outnumber by many times the severest epidemics of cholera or yellow fever. The latter, confined to a limited area, arrest the attention, while the former, on account of their widespread distribution, are regarded with equanimity, and submitted to as a matter of course. And yet, they are more easily prevented by us than either yellow fever or cholera. The latter diseases are of foreign importation, and a laxity of quarantine, for which we, as individuals or communities, are not responsible, may bring one or both of them upon us. Diphtheria and typhoid fever are home productions—the legitimate fruits of our own filth. The parent who throws his child into the fire, the husband who shoots his wife, the man who slays his neighbor, is justly condemned as a murderer. In what respect does he differ from him who breeds a pestilence that kills his wife and child and neighbor?—Dr. H. T. Bahnsen, in "*The Public Water Supply of Towns and Cities in N. C.*"

To return to the discussion of some of the details of the work before us. A comity of

interests having established an exchange of information in the possession of the officials at different points alike threatened by the invasion of disease, giving warning of the movements of persons and baggage, the quarantine officer in charge must be ready to meet an emergency arising out of the arrival of persons and their baggage from an infected locality and seeking refuge in his town. This will require a hospital and a house of observation. These should be erected at a point sufficiently removed from the town to render it impossible for communication to be had between persons detained and their friends in the community. Due regard should be had in the selection of a site for its healthfulness and water supply, as the care of the quarantined persons must not be so loose as to engender sickness among them arising out of bad judgment in the choice of the quarantine station. As these buildings and the smaller and necessary out-houses will be for temporary use, they can be cheaply built, and destroyed when the danger is over, if there has been disease introduced into them.

—Dr. George G. Thomas, in "*Inland Quarantine.*"

The immunity enjoyed by our State for the past two decades from small-pox epidemics has lulled the people into a state of security utterly unwarranted by the history of the disease. Of the nineteen hundred and fifteen persons committed to the jails, as reported to the *Bulletin* for the past six months, only three hundred and seventy-three give evidence of successful vaccination—about one in five. A conservative estimate would place more than four hundred thousand of our people without this great prophylactic, and it is high time the importance of this matter was being pressed upon the attention of health officer, physician and the general public.—Dr. J. H. Tucker, in "*The Duties and Responsibilities of County Superintendents of Health.*"

DOCTOR! Have you registered with the Clerk of the Superior Court of your county? If not, do so at once!

Organize County Boards of Health.

During the months of July and August we received the largest number of reports since the organization of this Board, namely, from seventy-one counties. This is doing pretty well, but we are not satisfied yet, and want to see every county in the State have a county board of health. Let the good work go on, and let those counties which have been rather slow to take hold (there are only twenty-one now) come to the front, and show their willingness, which we still believe they have, though they have procrastinated so long, to aid in keeping out preventable diseases from the State and promoting, incidentally, the health of their citizens.

The interests appertaining to the public health are so vast and of such increasing importance that it seems strange there are yet so many counties in this State that have neglected, so far, to take advantage of the means furnished by the Legislature to secure united effort in sanitary work by organizing county boards of health, and thus working after a system to be marked out by an intelligent Superintendent of Health, and aided by this Board, under whose guidance the health of the county could be so much improved, and a system of medical and sanitary inspection of our jails, alms-houses and houses of correction carried out, which must redound to the credit of the entire county and State. With such a superintendent the county need not be alarmed by an outbreak of some awful pestilence, either within the borders of its own county or State, or some neighboring or even far distant State or country; indeed, the questions involved by the appearance, now and then, of pestilential diseases in States so intimately bound to us by railroad and steam-boat communication, that it really follows that their cause is our cause in a philanthropic as well as a business sense, and, therefore, if we would disarm these epidemics of their greatest dangers, and quell the panics that do more harm, if possible, than the pestilence, we must have every county equipped with a board of

health, who can undertake the work of, firstly, preparing the county for any possible ingress of such pestilence by putting the county in such a sanitary condition as to prohibit or at least greatly lessen the possibility of such pestilence obtaining a foothold in any particular county; and secondly, should, by some means, a pestilence break out in some county, then, by having a properly organized board of health, the necessary work of stamping it out could be readily and efficiently carried out by it.

As before stated, there are twenty-one counties having no boards of health, ten eastern, four central and nine western, as follows: Anson, Burke, Clay, Dare, Davie, Gates, Graham, Halifax, Harnett, Hertford, Lenoir, Mecklenburg, Moore, Pamlico, Pasquotank, Perquimans, Pitt, Polk, Stokes, Surry and Yadkin. We have sent to the chairman of the Board of County Commissioners printed matter containing the law in the premises, a circular letter of instruction for the organization of county boards of health, and a sample blank form on which the county superintendent of health has to report to this office.

We urgently request the various boards of county commissioners of counties not yet having boards of health, and the physicians, the mayor of the county town and the county surveyor, or where no county surveyor exists, the county town surveyor, residing in such counties, to give this matter their earnest attention. Any of the above may take the initiative in the matter, as they are all entitled to be members, but we would suggest, however, that the chairman of the Board of County Commissioners be prevailed upon to take the matter in hand. Any physician desiring to become a member of such County Board of Health must have complied with the laws regulating the practice of medicine in this State.

Let every physician in every such county lend a helping hand, and we are sure it will not be long before every county will be provided with a board of health. We will cheerfully send to any one desiring it any printed matter

bearing upon this subject, and gladly give any additional information at our command that may be requested.

Laws Regulating the Practice of Medicine in North Carolina.

Any physician or Clerk of the Superior Court in any county in this State not yet having received a copy of the pamphlet containing the laws regulating the practice of medicine in this State may obtain the same upon application to the Secretary of the North Carolina Board of Health, Wilmington, N. C.

ARE YOU A PHYSICIAN OR SURGEON? *then register* with the Clerk of the Superior Court of your county, if you have not already done so, thereby saving yourself trouble and inconvenience after January 1st, 1889.

Valuable Pamphlets Free.

We will send a copy of any of the following pamphlets to any one sending the necessary postage, with their request:

No. 1. Healthy Homes and Foods for the Working Classes, postage 1 cent.

No. 2. The Sanitary Conditions and Necessities of School-Houses and School-Life, postage 1 cent.

No. 3. Disinfection and Individual Prophylaxis Against Infectious Diseases, postage 1 cent.

No. 4. The Preventable Causes of Disease, Injury and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing and Avoiding Them, postage 1 cent.

No. 5. The Proceedings of the Quarantine Conference, held in Montgomery, Ala., March 5, 6 and 7, 1889, 144 pages, postage 2 cents.

No. 6. Second Biennial Report of the N. C. Board of Health, 192 pages, postage 2 cts.

No. 7. Report of the Proceedings of the

First Annual Convention of the N. C. Sanitary Association, held in Raleigh, February 6 and 7, 1889, 136 pages, postage 2 cents.

No. 8. Vaccination, postage 1 cent.

No. 9. Care of the Eyes and Ears, postage 1 cent.

No. 10. A Year's Campaign Against Dirt, postage 1 cent.

No. 11. Sanitary Engineering, 3d Edition, 90 pages, postage 2 cents.

No. 12. Method for Performing Post-Mortem Examinations, postage 1 cent.

Order by numbers.

These pamphlets should be in the hands of our best people, who will find much in them worthy of careful perusal and food for meditation. Large quantities of the above pamphlets have already been distributed over the State, but as we still have quite a supply left, we offer this opportunity to such who have not received them, or all of them, this chance to secure for themselves now a copy of any of the above. Requests for the above pamphlets should be directed to the Secretary of the N. C. Board of Health, at Wilmington, and *must* be accompanied by the necessary postage, otherwise they will *not* be considered.

Review of Diseases Reported by Counties for August, 1889.

Blind staggers among horses was reported from Chowan, Hyde and Onslow.

Bronchitis was reported from Jones and Yancey.

*Chicken-cholera was reported from Chat-ham, Jones, Lincoln and Martin.

Congestion of the brain was reported from Henderson.

Cholera-infantum was reported from Iredell and Yancey.

Cholera-morbus was reported from Yancey.

*Distemper among horses was reported from McDowell.

*Diphtheria was reported from Beaufort, Caswell, Craven, Guilford, Iredell, Madison, New Hanover, Orange, Rowan and Rutherford.

Dysentery was reported from Brunswick, Camden, Caswell, Chatham, Duplin, Granville, Jones, Montgomery, New Hanover, Orange, Union, Vance and Yancey.

*Erysipelas was reported from Yancey.

*Hog-cholera was reported from Bertie, Columbus, Duplin, Gaston, Green, Johnston, Martin, Nash, Randolph and Sampson.

*Influenza was reported from Yancey.

Malarial fever was reported from Brunswick, Camden, Caswell, Chowan, Craven, Cumberland, Edgecombe, Gaston, Guilford, Hyde, Iredell, Johnston, Martin, Northampton, Rowan and Warren.

Malarial jaundice was reported from Randolph.

*Measles was reported from Forsyth, Swain and Wayne.

*Pneumonia was reported from Yancey.

*Scarlet fever was reported from Rowan and Wayne.

Tonsilitis was reported from Macon.

*Typhoid fever was reported from Alexander, Buncombe, Cabarrus, Caldwell, Catawba, Chat-ham, Cherokee, Chowan, Cleveland, Colum-bus, Craven, Duplin, Edgecombe, Forsyth, Franklin, Granville, Guilford, Henderson, Ire-dell, Johnston, Lincoln, Macon, Martin, McDowell, Mitchell, Montgomery, Nash, Northampton, Orange, Randolph, Rowan, Sampson, Stanly, Swain, Tyrrell, Union, Vance, Wake, Warren, Watauga and Wayne.

*Whooping-cough was reported from Forsyth, Henderson, New Hanover, Onslow, Rowan, Swain and Wayne.

NOTE.—All diseases marked thus * are considered dangerous to the public health, and should be reported promptly.

*Summary of Mortuary Statistics from Towns
for August, 1889.*

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population--	74,885	58,315	133,200
Aggregate deaths -----	73	148	221
Temporary annual death rate per 1,000-----	10.8	22.8	16.8
Deaths under 5 years..	29	58	87
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever-----	9	12	21
Malarial fever-----	4	10	14
Diphtheria-----	4	0	4
Pneumonia-----	1	4	5
Consumption-----	7	23	30
Brain diseases-----	3	2	5
Heart diseases-----	5	3	8
Neurotic diseases-----	1	8	9
Diarrhoeal diseases-----	9	20	29
All other diseases-----	31	46	77
Accident and violence--	3	1	4
Still-born-----	5	10	15
Under 5 years-----	29	58	87
 Total-----	 73	 148	 221

*Summary of Reports Received from Counties
for the Month of August, 1889.*

Alamance—Dr. George W. Long, Graham. The general sanitary condition of the public buildings is good, except that of the jail, which, however, is as good as the building will permit. There has been no epidemic among domestic animals. The general health of the county is unusually good for this season.

Alexander—Dr. H. McD. Little, Taylorsville. The general sanitary condition of the county is good, with the exception of a few cases of typhoid fever. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is as good as the buildings will admit.

Alleghany—Dr. George Doughton, Sparta. No report.

Ashe—Dr. J. W. Colvard, Jefferson. No report.

Anson—Has no Board of Health.

Beaufort—Dr. W. A. Blount, Washington. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is as before reported (?)

Bertie—Dr. F. V. Dunston, Windsor. The sanitary condition of the county is very good. No contagions or epidemics have prevailed in any portions. There has been an epidemic of cholera among hogs. Improvements are being made in the jail. Sanitary condition of the poor-house is good.

Bladen—Dr. Newton Robinson, Elizabethtown. The sanitary condition of the county is very good. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Brunswick—Dr. D. B. McNeill, Supply. Dysentery and malarial fever have prevailed. No efforts at improvement of public buildings noted.

Buncombe—Dr. H. B. Weaver, Asheville. This has been the healthiest season in this county and city for the past ten years. There have been a few cases of typhoid fever of a very mild grade in different portions of the county. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is very good in every respect.

Burke—Has no Board of Health.

Cabarrus—Dr. Robert S. Young, Concord. The sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The general sanitary condition of the public buildings is good.

Caldwell—Dr. Robert L. Beall, Lenoir. It has been very wet, but the general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The poor-house is in good sanitary condition; but one death, and that from old age. The jail is too much crowded in one

room to be healthy, but no one has been sick so far.

Camden—Dr. Ed. B. Ferebee, Belcross. Malarial fever, dysentery, etc., common to this section, prevailed during August, to some extent, in all portions of our county. No sickness of a serious nature. The public buildings are in good sanitary condition.

Carteret—Dr. M. F. Arendell, Morehead City. The sanitary condition of the county is good as far as I can learn. There has been no epidemic of any kind among domestic animals. All of the inmates of jail and poor-house are in good health and their rooms clean and sweet.

Caswell—R. H. Williamson, Yanceyville. The general sanitary condition of the county is fair. Efforts at cleaning up the creeks are being made, which I hope will improve the general health of the county. The general sanitary condition of the public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. The sanitary condition of the county generally is good. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is as good as could be expected. There is some prospect of the poor-house and jail being enlarged very soon.

Chatham—Dr. L. A. Hanks, Pittsboro. The general sanitary condition of the county is good as far as known. Dysentery and typhoid fever are the prevailing diseases, though neither are of a fatal type. There has been an epidemic of chicken-cholera. The sanitary condition of the public buildings is very good; strict attention is paid to the conditions incident to prevention of disease at almshouse and jail.

Cherokee—Dr. J. F. Abernathy, Murphy. This county has had during August more fever than for many months before, due largely to the filthy condition of wells and the excessive rainfall. I suppose there has been no improvement in the sanitary condition of the public buildings since my last report.

Chowan—Dr. R. W. Winborne, Barnitz. The sanitary condition of the county is good. There has been less malaria than is usual in

August. A few cases of "blind staggers" have been reported. The public buildings are kept clean, are well ventilated and inmates healthy. The jail has been repaired since last report.

Cleveland—Dr. J. C. Gidney, Shelby. There has been no epidemic among domestic animals. There have been several cases of typhoid fever reported. The sanitary condition of the public buildings is good.

Clay—Has no Board of Health.

Columbus—Dr. Isaac Jackson, Whiteville. The general sanitary condition of the county is unusually good for the season of the year. The physicians are comparatively idle. There has been an epidemic of hog-cholera in some sections of the county. The sanitary condition of the public buildings is very good. Our new county hospital will be finished before January.

Craven—Dr. Leinster Duffy, Newbern. The general sanitary condition of the county is good, although malarial and typhoid fevers are reported in city and county; diphtheria has been reported from near Vanceboro. Our public buildings are kept in excellent sanitary condition.

Cumberland—Dr. James A. Hodges, Fayetteville. Reports from the physicians of the county are nearly all to the effect that little sickness prevails except of malarial origin. The public buildings are in first-class condition. Beginning with last month, our town authorities instituted a system of death registry, which will be of great advantage.

Currituck—Dr. F. W. Ritter, Moyock. No report.

Davie—Has no Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. The health of the county is remarkably good for the season. There has been no epidemic among domestic animals. The condition of the public buildings remains unchanged.

Duplin—Dr. James W. Blount, Kenansville. There is considerable sickness in every portion of county. Hog-cholera has prevailed. The general sanitary condition of the poor-house is

good, there being little sickness among the inmates.

Durham—Dr. N. M. Johnson, Durham. It appears that very little sickness prevailed in the county during the month of August. There has been no epidemic of any kind among domestic animals. The condition of all of the public buildings is good, with the exception of the basement of the new court-house, which is very damp, but efforts are making to remedy it.

Edgecombe—Dr. Julian M. Baker, Tarboro. The sanitary condition of the county is as usual.

Forsyth—Dr. D. N. Dalton, Jr., Winston. The sanitary condition of the county is very good. We have had some very mild cases of whooping-cough, diphtheria and measles. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is good.

Franklin—Dr. E. S. Foster, Louisburg. There have been a good many cases of typhoid and typho-malarial fever in the county. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is very good.

Gaston—Dr. E. B. Holland, Dallas. The county is in a pretty fair sanitary condition. There has been an epidemic of hog-cholera. The sanitary condition of the poor-house is first-class. The jail has recently been enlarged and its facilities for ventilation improved. No sickness in jail; considerable at poor-house among old and infirm paupers.

Gates—Has no Board of Health.

Graham—Has no Board of Health.

Granville—Dr. J. M. Hays, Oxford. The general sanitary condition of the county is good. Dysentery is still with us to a slight extent and typhoid fever is making itself manifest in some sections. There has been no epidemic among domestic animals. Our public buildings are all in good condition. The town has, upon my recommendation, recently built public privies and made it a misdemeanor for any person to "commit a nuisance" within the corporate limits.

Greene—Dr. W. C. Galloway, Snow Hill. A great deal of remittent fever has prevailed throughout the county. There has been an epidemic of hog-cholera. The public buildings are in very good sanitary condition.

Guilford—Dr. R. W. Tate, Greensboro. The sanitary condition of the county is not good; a considerable number of cases of malarial fever have been reported. There has been no epidemic among domestic animals. The sanitary condition of the poor-house is good; there has been no sickness among them for some time. No improvement in jail since last report except in thorough cleanliness and in the use of disinfectants.

Halifax—Has no Board of Health.

Harnett—Has no Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report received.

Henderson—Dr. L. L. Johnson, Angeline. The sanitary condition of the county is good outside of Hendersonville, there has been much typhoid fever in the town the past three months, the local cause of the trouble being the drinking water; the officers have had this corrected and we find the trouble has about disappeared. There has been no epidemic of any form among domestic animals. The jail and poor-house are in good condition. We will soon have a new poor-house; contract will be let at an early day for the building of a new jail with all modern improvements.

Hertford—Has no Board of Health.

Hyde—Dr. Edward Clark, Middleton. The sanitary condition of the county is not good, but salt air currents disperse malarial emanations and a good healthy standard is maintained. No excess of rain has fallen during August. There have been many cases of staggers among horses. The general sanitary condition of the public buildings is good, but might be better.

Iredell—Dr. M. H. Hill, Statesville. Malarial fever abounds in different portions of the county, and is in parts of the county never known to have been affected by it before. There has been no epidemic of any kind among domestic animals. The general sanitary con-

dition of the public buildings is about as usual. No sickness in either jail or poor-house.

Jackson—Dr. J. M. Candler, Dillsboro. There is no epidemic of any kind in this county. The sanitary condition is very good; there have been no new cases of typhoid fever; all recovered. The jail has been greatly improved; it has been whitewashed with lime, and its sanitary condition is now good in every way.

Johnston—Dr. L. L. Sasser, Smithfield. The sanitary condition of the county is very good. There has been a slight epidemic of hog-cholera. The general sanitary condition of the public buildings is very good. No efforts being made at improvement.

Jones—Dr. Charles B. Woodley, Trenton. The sanitary condition of the county is as good as can be expected with so much rain. There has been an epidemic of chicken-cholera. The sanitary condition of the jail is good.

Lenoir—Has no Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. The sanitary condition of the county is good. Dr. Hoover, of Lowesville, is the only physician reporting. There has been an epidemic of chicken-cholera. All of the public buildings are well kept and have had no disease in either during the month. There is no effort at improvement, and none seriously needed.

Macon—Dr. J. M. Lyle, Franklin. The sanitary condition of the county is good except in the coves and outskirts of the county. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Madison—Dr. James K. Hardwicke, Marshall. The general sanitary condition of the county is good. The capacity of the jail has been enlarged; the prisoners have been put to work by the commissioners and their health has been very much improved.

McDowell—Dr. J. H. Gilkey, Marion. The general sanitary condition of the county has been good. There has been no epidemic among domestic animals. The general sani-

tary condition of the public buildings is good. There are a number of the inmates of the poor-house who are sick and helpless, and suffering for lack of proper nursing and diet, as the compensation of the keeper does not justify him in furnishing nurses and diet for invalids.

Martin—Dr. W. H. Harrell, Williamston. The sanitary condition of the county is good, except our creek and river bottom lands which have been overflowed. There has been an epidemic of cholera among domestic animals. The jail is in good condition. Poor-house and grounds in good condition, but decidedly too crowded.

Mecklenburg—Has no Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. The general sanitary condition of the county is fairly good; but typhoid fever has prevailed in one part of the county—we have had one case in the village. There has been no epidemic of any kind among domestic animals. The poor-house is in very good sanitary condition; the jail is not so good, and nothing is being done to better it.

Montgomery—Dr. W. A. Simmons, Troy. Dysentery was the only prevailing disease at the commencement of the month and malarial diseases at the close of the month are rather numerous. There has been no epidemic among domestic animals. There are no visible efforts at improvement of the sanitary condition of the public buildings, and none needed, without we were wealthier.

Moore—Has no Board of Health.

Nash—Dr. Geo. W. Lewis, Spring Hope. The general sanitary condition of the county is good. The jail and poor-houses are in good sanitary condition. There has been an epidemic of hog-cholera.

New Hanover—Dr. F. W. Potter, Wilmington. The county is in excellent sanitary condition—no disease of any kind has prevailed; some diarrhoeal troubles did exist, but have subsided. There has been no epidemic of any kind during the last month (August). The county jail is in a good, cleanly condition—no

sickness during the month. The house of correction is well whitewashed and scoured; no sickness among the prisoners. The poor-house is usually in good condition—is whitewashed inside and out every few weeks; one case of fever (malarial) and diarrhoea during the month.

Northampton—Dr. H. W. Lewis, Jackson. The sanitary condition of the county is fair. There has been no epidemic among domestic animals. The general sanitary condition of the public buildings is fair.

Onslow—Dr. J. L. Nicholson, Richlands. The sanitary condition of the county is much better, so far as the health of the people is concerned; not any great amount of malarial fever for August, yet this could be called our only prevailing disease. Several cases of "staggers" in horses have been reported from middle and northern part of county—nearly every case proving fatal. Our jail, being newly built, is in fine sanitary condition, well ventilated and kept clean. Our jailer is doing his part well. The poor-house, as before reported, consists of a few frame, one-room, badly-ventilated dwellings, very hot in summer and very cold in winter.

Orange—Dr. D. C. Parris, Hillsboro. We have had no deaths in our town. The death-rate of our county has not been proportionately large, taking into consideration the nature of prevalent diseases and season of the year. Owing to the very warm weather now prevailing, and the fact that our surface-soil has, for the past two months, been thoroughly saturated, much malarial fever is looked for. There has been no epidemic of any kind among domestic animals. The sanitary condition of the poor-house is very good. Lime is used plentifully; cleanliness, ventilation and illumination are well maintained. The sanitary condition of the guard-house is good; that of the jail is not very good. The work for improving and enlarging the seating capacity of our court-house is now in progress.

Pamlico—Has no Board of Health.

Pasquotank—Has no Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. There are eight prisoners in jail, and five inmates in poor-house. The food served each is good; ditto, the water.

Perquimans—Has no Board of Health.

Person—Dr. C. G. Nichols, Roxboro. No report received.

Pitt—Has no Board of Health.

Polk—Has no Board of Health.

Randolph—Dr. J. W. Long, Randleman. The general sanitary condition of our county is left entirely to kind Providence. Pig-pens, uncleared privies and wells that will not bear investigation, are the order of the day. We are meeting with some opposition in our work as County Board of Health, but am glad to say it is only from one man—more's the pity he is a "Doctor!" (59'er). Malarial jaundice has prevailed in this immediate section. There has been less complaint of cholera among hogs than in previous month. The court-house is a substantial brick building, but its appearance and condition might be improved by painting the woodwork and roof, and hanging the window-sashes so that they could be let down from the top and thus give better ventilation. The sanitary condition of the jail building is good; that of the poor-house, as a whole, is fair only. The jail is a two-story wooden building, 33x44 feet; the lower story of which is used as a residence for the jailer and family, the upper story containing the cells for the prisoners. These cells are each 12x14x10 feet, and are white-washed every month or two; they contain no bedsteads, the prisoners sleeping on pallets consisting of straw mattress and such bed clothing as the weather permits or demands. An improvement might be instituted here by having iron bedsteads, and allowing no quilts or comforts but blankets instead, which should be frequently washed. The cell-room has fourteen windows each 6x3½ feet, and each cell has two windows 2½x4 feet and a door 2x6 feet. A space of 2 feet 4 inches is left between cells and outer wall of building.

The hall-way, being in the middle of the cell-room, is 10x32 feet, and in its centre stands the only stove which is to furnish heat for this large room (33x44 feet). Each cell contains 1680 cubic feet. Metal buckets are used for the excreta, and are carried out *once a day*. The buckets are changed every day—one set being aired while the other is in use. No antiseptic other than a sparing use of lime is employed. The prisoners when tractable are allowed a good deal of the day time to go outside the cells into the hall-way and space *around* the cells. The diagram sent for reference was made from actual measurements furnished by my collaborator, Dr. S. A. Henley.

Richmond—Dr. W. W. Covington, Rockingham. No report received.

Robeson—Dr. R. F. Lewis, Lumberton. The sanitary condition of the county is fair, considering the heavy rain-fall during the month. There has been no epidemic of any kind among domestic animals. Repairs and improvements are needed at county poor-house. Suggestions have been furnished by this Superintendent what was needed.

Rockingham—Dr. T. E. Balsley, Reidsville. No report received.

Rowan—Dr. J. J. Summerell, Salisbury. I hear that there is a good deal of sickness in two or three townships; but having no reports from the doctors, I cannot report except from hearsay. Drs. Ramsay and Poole are the only ones reporting; these are my *stand-bys*—my springs in a thirsty land—my oasis in the sandy desert. I mention this to show my delinquent brethren how much I should love to have them do likewise. Salisbury is in good sanitary condition and little sickness of any sort. There is evidently an increase of consumption among the colored population, and when sick there is a great deal more fatality than among whites. There has been no epidemic of any sort reported among domestic animals. The general sanitary condition of the public buildings is good. The jail is too small when there are more than fifteen confined; there have been

as many as twenty-four packed here at one time this summer. I have called the attention of the Commissioners to the deficient air-space in the jail when too crowded, but they have taken no action and probably will not for some years to come.

Rutherford—Dr. E. B. Harris, Rutherfordton. There have been twelve cases of diphtheria reported, but it seems to be local and not general—four proved fatal. The public buildings are in good sanitary condition.

Sampson—Dr. John A. Stevens, Clinton. The general sanitary condition of the county is not good, there having been a great deal of sickness during the month. Some cases of typhoid and many of malarial fevers; five cases of diphtheria, a few of whooping-cough, and many of measles; no new cases of diphtheria in the last two weeks. Hog cholera is bad. I am frequently asked for the best remedy. Will some kind reader of the *Bulletin* inform me? The general sanitary condition of the poor-house is good; the sanitary condition of the jail remains bad; no efforts have yet been made to improve it since last report.

Stanly—Dr. R. Anderson, Albemarle. The health of the county is good for this season of the year. There has been no epidemic of any kind among domestic animals. The sanitary condition of the poor-house is good; the jail is an old box, moderately clean inside, not capable of being improved; outside surroundings are filthy. The physicians of Stanly give me little encouragement—none of them reporting to me.

Stokes—Has no Board of Health.

Surry—Has no Board of Health.

Swain—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county is very good—only one death from typhoid fever to report during the month. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is as good as can be; but no efforts at improvement.

Transylvania—Dr. D. H. Farmer, Brevard. The county still has a great deal of sickness—more than there has been for many years—mostly cases of bilious-catarrhal fever; some cases also of bilious-remittent, and several deaths; but no typhoid fever as yet. There has been no epidemic of any kind reported among domestic animals. The public buildings are all in good order, having been recently repaired.

Tyrrell—Dr. Ab. Alexander, Columbia. The sanitary condition of the county is good. The public buildings are in good order.

Union—Dr. W. C. Ramsay, Monroe. The health of the town and county has been comparatively good during last month. There has been no epidemic among domestic animals. The poor-house is in as good sanitary condition as could be desired; that of the jail is not good, and no visible efforts at improvement.

Vance—Dr. A. Cheatham, Henderson. There has been some typhoid fever and diarrhoea and dysentery reported. There has been no epidemic among domestic animals. The sanitary condition of the public buildings is very good.

Wake—Dr. James McKee, Raleigh. The surface drains have been filled up by the recent heavy rains; but are now being cleaned out. The city authorities are diligent in their efforts to keep the town clean. There has been no epidemic of any kind among domestic animals. All of the public buildings are in good sanitary condition, and will be bettered when the sewers are completed.

Warren—Dr. P. J. Macon, Warrenton. The sanitary condition of the county is improving very fast; nothing like as much fever during the latter part of the month as compared with the first part. Our town is thoroughly policed by inspecting officers every week, and therefore we rarely ever have fevers in the town proper. The sanitary condition of the public buildings is very good. The inmates of the

poor-house show marked improvement in condition, after having remained even only a short time under good hygienic treatment, to which I attribute, in a great measure, the change.

Washington—Dr. W. H. Ward, Plymouth. No report received.

Watauga—Dr. W. B. Councill, Boone. The season has been very wet; very little sickness of any kind has prevailed. I have never known it to be so healthy. The sanitary condition of the county and towns is first-class. There has been no epidemic of any kind among domestic animals. The sanitary condition of the poor-house is good; that of the old jail is bad, but a new jail is in course of construction and will be finished in about two months; when completed it will be first-class.

Wayne—Dr. James Spicer, Goldsboro. The general sanitary condition of the county is good. There has been no epidemic of any kind among domestic animals. The sanitary condition of the public buildings is good.

Wilkes—We were in hopes of hearing from this county. We were informed that steps had been taken to organize a County Board of Health. What is the matter?

Wilson—Dr. N. Anderson, Wilson. The sanitary condition of the poor-house is good; that of the interior of the jail is also good; but the sewerage leading from the latter is very defective. The attention of the Board of County Commissioners was called to the matter at their last meeting, and steps will be taken towards improvement of this defect.

Yadkin—We hope to soon see this county provided with a Board of Health. Friends of sanitary improvement are at work with this end in view.

Yancey—Dr. John L. Ray, Burnsville. The general sanitary condition of the county is moderately good. There has been some cholera among hogs. The sanitary condition of the public buildings is very good at present.

Condition of Jails and Poor-houses by Counties for August, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number Inmates In.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	7	800	3	4	24	500	a	a
Alexander.....	1	3,748	0	1	7	635	0	0
Ashe.....								
Alleghany.....								
Anson.....								
Beaufort.....	13	800	a	a	15	1,000	a	a
Bertie.....	3	1,920	0	0	11	896	a	0
Bladen.....	2	a	a	a	6	a	a	a
Brunswick.....	8	a	a	a	10	c	a	a
Buncombe.....	20	1,000	15	12	35	700	21	22
Burke.....								
Cabarrus.....	9	1,017	0	a	22	2,020	6	a
Caldwell.....	8	515	0	7	8	630	0	2
Camden.....								
Carteret.....	4	443	0	1	0	a	0	0
Caswell.....	1	a	a	a	22	1,000	9	3
Catawba.....	6	600	2	3	30	750	9	8
Chatham.....	4	1,950	2	2	20	1,450	10	10
Cherokee.....	4	2,000	1	3	1	2,300	a	a
Chowan.....	8	480	2	3	6	2,621	0	1
Clay.....								
Cleveland.....	8	684	a	2	38	997	a	7
Columbus.....	3	5,544	a	1	7	629	a	0
Craven.....	18	900	6	3	29	750	0	1
Cumberland.....	17	800	11	12	21	1,000	18	16
Currituck.....								
Dare.....								
Davidson.....	7	1,562	0	0	21	721	0	5
Davie.....								
Duplin.....	b	b	b	b	21	a	a	a
Durham.....	15	1,000	a	4	18	1,000	a	2
Edgecombe.....	12	1,390	a	2	33	2,400	a	2
Forsyth.....	24	900	6	5	18	c	4	2

a. No data given. b. Jail burned. c. Ample (?).

Condition of Jails and Poor-houses by Counties for August, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	4	5,000	a	a	19	11,626	a	2
Gaston.....	7	1,087	0	3	14	2,404	2	3
Gates.....								
Graham.....								
Granville.....	8	4,125	a	a	24	750	a	a
Greene.....	4	500	a	a	13	1,000	4	2
Guilford.....	8	700	3	4	32	1,250	9	11
Halifax.....								
Harnett.....								
Haywood.....								
Henderson.....	10	1,200	a	6	3	2,000	a	0
Hertford.....								
Hyde.....	a	a	a	a	a	a	a	a
Iredell.....	10	1,122	a	a	20	554	a	a
Jackson.....	0	a	0	0	4	2,000	0	2
Johnston.....	5	4,000	3	3	14	850	6	5
Jones.....	1	5,520	0	0	5	1,120	0	0
Lenoir.....								
Lincoln.....	10	771	a	7	26	400	a	5
McDowell.....	5	550	2	4	10	600	1	1
Macon.....	2	2,700	0	0	a	a	a	a
Madison.....	6	300	0	0	3	2,920	0	0
Martin.....	6	550	0	2	17	250	2	4
Mecklenburg.....								
Mitchell.....								
Montgomery.....	2	500	a	1	14	500	a	a
Moore.....								
Nash.....	4	a	2	1	38	a	15	18
New Hanover.....	18	500	14	10	20	600	18	8
Northampton.....	a	a	a	a	39	1,000	15	12
Onslow.....	2	2,500	0	a	5	2,000	2	2
Orange.....	2	512	0	0	33	2,048	15	8
Pamlico.....								

a. No data given.

Condition of Jails and Poor-houses by Counties for August, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	8	1,018	6	5	5	a	3	2
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	12	560	1	10	26	714	9	11
Richmond.....								
Robeson.....	13	531	a	a	11	655	a	a
Rockingham.....								
Rowan.....	13	600	2	2	15	2,400	2	1
Rutherford.....	16	427	a	a	28	928	a	a
Sampson.....	2	a	a	a	24	a	a	a
Stanly.....	4	c	0	3	13	d	0	1
Stokes.....								
Surry.....								
Swain.....	a	a	a	a	a	a	a	a
Transylvania.....	2	1,300	1	2	4	2,000	2	2
Tyrrell.....	1	1,100	0	0	2	1,100	0	0
Union.....	7	1,500	a	3	15	2,000	a	2
Vance.....	2	5,088	2	2	15	11,447	a	2
Wake.....	35	801	a	a	50	a	a	a
Warren.....	5	2,860	2	2	15	2,750	9	2
Washington.....								
Watauga.....	0	a	0	0	6	b	0	0
Wayne.....	14	890	5	5	13	1,650	4	4
Wilkes.....								
Wilson.....	3	3,906	a	a	26	986	2	3
Yadkin.....								
Yancey.....	2	1,152	0	1	0	a	0	0

a. No data given. b. Large, comfortable room for each inmate (what size?). c. Three have 600 cubic feet each, and one has 1700 cubic feet. d. Plenty (?)

Meteorological Report for August, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.						
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
Chapel Hill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chat'oga, Tenn.	74.9	91.0	10	57.0	18	34.0	18.7	27.0	18	11.0	15	11	10	10	18	3.77	N.W.
Charleston, S.C.	78.0	90.0	14	66.0	19	34.0	12.0	20.0	a	8.0	a	3	4	24	15	7.36	S. W.
Charlotte.....	74.1	90.0	10	58.0	17	32.0	17.1	25.0	a	5.0	a	10	9	12	11	4.53	N. E.
Columbia, S. C.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hatteras	76.0	84.0	2	67.0	19	17.0	8.0	14.0	19	5.0	24	13	10	8	14	5.30	N. E.
Kitty Hawk.....	76.6	95.8	22	61.7	17	34.1	16.2	23.8	22	3.0	26	4	12	15	15	6.89	S. W.
Knoxv'lle, Tenn	73.2	86.0	20	56.0	17	30.0	13.0	24	19	11.0	15	9	12	10	13	6.42	N. E.
Lynchburg, Va..	72.5	89.0	14	53.0	17	36.0	18.3	29.0	a	8.0	a	8	12	11	12	3.82	S.
Norfolk, Va.....	74.4	90.0	22	61.0	17	29.0	13.9	24.0	10	3.0	28	8	7	16	20	5.93	S.W.
Raleigh	73.3	90.0	21	56.0	17	34.0	16.4	25.0	17	5.0	11	6	11	14	19	8.74	S.
Southport.....	76.2	87.0	2	61.4	18	25.6	14.7	19.4	10	4.7	12	11	9	11	16	3.78	S. W.
Wake Forest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	76.0	87.0	11	63.0	17	24.0	13.2	21.0	a	4.0	a	10	12	9	17	7.71	.W

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C ..	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn	30.14	30.26	9	29.95	14	.31
Charleston, S. C	30.11	30.22	2	29.93	15	.29
Charlotte, N. C	30.13	30.27	9	29.89	14	.38
Columbia, S. C .....	.....	.....	.....	.....	.....	.....
Hatteras, N. C	30.12	30.27	1	29.92	15	.35
Kitty Hawk, N. C	a	a	a	a	a	a
Knoxville, Tenn	30.14	30.28	20	29.92	14	.46
Lynchburg, Va	30.09	30.25	8	29.79	14	.46
Norfolk, Va	30.10	30.25	9	29.81	14	.44
Raleigh, N. C	30.10	30.25	9	29.84	17	.41
Southport, N. C	a	a	a	a	a	a
Wake Forest, N. C .....	.....	.....	.....	.....	.....	.....
Wilmington, N. C	30.11	30.24	9	29.88	15	.36

a. No data given.

Mortuary Report for August, 1889.

ELISHA MITCHELL SCIENTIFIC SOCIETY.

CHAPEL HILL, N. C.

BULLETIN

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VOL. IV.

OCTOBER, 1889.

NO. 7.

Prevalent Diseases existing throughout the State during the Month of September, 1889.

*Chicken-cholera was reported from Bladen and Jackson.

*Distemper among horses was reported from Yancey.

*Diphtheria was reported from Buncombe, Cabarrus, Caldwell, Chatham, Cumberland, Forsyth, Greene, Lincoln, McDowell, Mitchell, New Hanover, Orange, Rutherford and Tyrrell.

Dysentery was reported from Brunswick, Madison and Nash.

Hemorrhagic malarial fever was reported from Edgecombe, Greene and Northampton.

*Hog-cholera was reported from Bladen, Brunswick, Columbus, Edgecombe, Greene, Johnston, Nash, Rutherford, Sampson and Yancey.

Jones, Lincoln, Madison, Montgomery, Nash, New Hanover, Northampton, Onslow, Richmond, Rowan, Sampson, Union and Warren.

*Measles was reported from Randolph, Rutherford, Sampson and Swain.

Mumps was reported from Tyrrell.

Pernicious malarial fever was reported from Johnston.

Pneumonia was reported from McDowell.

*Scarlatina was reported from Madison and New Hanover.

Staggers was reported from Bladen, Carteret, Duplin, Greene and Sampson.

*Typhoid fever was reported from Alamance, Bladen, Brunswick, Buncombe, Cabarrus, Caldwell, Chatham, Columbus, Duplin, Edgecombe, Forsyth, Franklin, Granville, Henderson, Iredell, Johnston, Jones, Macon, Madison McDowell, Mitchell, Montgomery, Nash, New Hanover, Orange, Randolph, Richmond, Robeson, Rowan, Sampson, Stanly, Transylvania, Tyrrell, Union, Vance, Warren Watauga and Yancey.

Whooping-cough was reported from Cumberland, Duplin, Forsyth, Onslow, Orange, Sampson and Swain.

*Influenza was reported from Orange.
Malarial fever was reported from Alamance, Brunswick, Caswell, Chowan, Cumberland, Duplin, Edgecombe, Franklin, Gaston, Granville, Greene, Guilford, Iredell, Johnston,

*Excerpts from the Transactions of the N. C.
Sanitary Association, 1889.*

Sanitary science teaches us that the virulence of diphtheria can be mitigated, and its germs prevented from propagation, by cleanliness in our premises and surroundings. In the city of Pullman, where sanitation is enforced by law, the disease is unknown. We know further, that it is highly contagious, spreading rapidly from the person and surroundings of the sick, and particularly from the body of the dead. Yet the dead body of the little victim is often left exposed to be gazed at by friends and kissed by relatives, the bedding and furniture of the sick-room placed in the yard to poison the atmosphere, and the sputa and dejecta of the patient thrown upon the ground to pollute the surrounding wells. Isolation of the sick, thorough disinfection, and prompt sealing up of the dead body will limit the contagion, and yet there is not a law on our statute books to enforce these simple and necessary regulations. Probably more than one thousand children in North Carolina are yearly sacrificed to this preventable disease by our indifference and stupidity. Shall the blood of these slaughtered innocents cry out from the ground in vain? * * *

Writers upon cholera in India ascribe its origin and virulence largely to the fact that the washing of clothes is carried on in the water which is used for drinking. How often do we see the washing of the family done at the well or on the bank of the spring? Need we wonder if such water is sometimes unwholesome?

The importance, nay, the vital necessity, for a pure water supply for our people, whether they are scattered over the country or aggregated in towns, must be conceded. As towns increase in population, the difficulty of procuring a wholesome water supply, and the dangers of its pollution, are correspondingly augmented.

It is asserted that a barrel of kerosene,

poured into a hole ten feet in the ground, will contaminate all the wells in a radius of a quarter of a mile. Sooner or later, therefore, the poisonous products of decomposing filth must find their way into a well in proximity to a habitation and its out-houses. As population increases in a given area, so does the volume of garbage and filth and excrement. In addition to this, vegetation, which would otherwise assist in its disposal, decreases in inverse ratio to density of population. The bare ground of streets and yards becomes supersaturated with rotting refuse, which percolates through the subsoil into the wells. The germs of disease may not be in this pitcher full or that, but they will surely find us some day if we continue to use the water which contains them. A water-bed, or basin, cannot safely be used for concurrent purposes of water supply and the reception of offal. Sickness and death will follow as surely as the night succeeds the day. A new source of supply, therefore, must be sought, and this is the question that confronts every growing town. * * *

In the selection of a water supply, we should not be contented with an examination of the contour of the water-shed. It must be remembered that, in most sections of our State, the crust of the earth is of very recent formation—the result of denudation and atmospheric action upon the underlying rocks. These may, and, indeed, generally do, dip at a considerable angle to the surface. Surface drainage and subsoil drainage, therefore, are often in different or even opposite directions, and our calculations as to the area which supplies this or that water basin are frequently at fault. It must be evident, then, that we should have an accurate knowledge of the dip and strike of the water-bearing stratum. Nowhere could the services of a competent geologist or engineer be more profitably utilized than in the selection of a site for a water-supply.

North Carolina is a well-watered State, and our surface is not yet settled so thickly that a

suitable area for a wholesome water-supply cannot be found, in most cases, near a town. Such localities should be secured without delay, and zealously guarded against contamination. It needs no argument to convince a thinking man that this course is true economy. What ought to be done should, in all cases, be done at once. It is we who are interested in this matter, now in our own time and generation; for what does it avail us that our town is supplied with pure water ten years hence, if at that time it be remarked of us: "Ah, yes, I remember him well; he died of typhoid fever eight years ago." And it is an easy matter to so arrange the financial burden that part of it shall fall upon those who will hereafter participate in its benefits.

The purity of the water should be the first consideration. We must go to nature for this, and take advantage of her lavish generosity in this direction. In some cases springs may afford a sufficient supply, in others a large stream, in still others a neighboring lake. These failing, it may be there is an impervious stratum below our polluted water-shed, piercing which, we find an abundance of uncontaminated water. Such water is utilized in Brooklyn and Memphis, and is the hope of Newbern and Goldsboro in our own State. * * *

The North Carolina Board of Health need the moral and financial support of the people of the State to carry out their mission. If these are given grudgingly, only niggardly returns can be expected. Give them enough to prosecute their noble work, and if they fail to fulfill their promise and your expectations, they will deserve to be cast out as unprofitable servants. * * * Dr. H. T. Bahnson, in "*The Public Water Supply of Cities and Towns in N. C.*"

Delinquent Superintendents.

We would respectfully call the attention of delinquent superintendents of health to section

8 of The Code, relating to the State Board of Health, and request their earnest consideration of the same:

"Sec. 8. Monthly returns of vital statistics upon a plan to be made by the county superintendent of health, and a failure to report by the tenth of the month of the preceding month shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health."

Means to Prevent the Spread of Scarlet Fever and Diphtheria.

As soon as any person is taken sick with scarlet fever or diphtheria, select a room as remote as possible from the rest of the family.

Remove from the room all unnecessary furniture, rugs and hangings, then have the patient placed in this room and not allowed to leave it while sick.

Allow only necessary attendants to enter this room.

Keep all other people out of the room and away from those who attend the patient.

Persons who live in the house, or have lived in the house during any part of the disease, must not go to school, church, or to any public gathering, nor to any house where there are children.

Immediately disinfect every article which is taken from the sick-room.

To disinfect dishes, boil them in common water for half an hour.

To disinfect bed clothes, the patient's clothing, towels, napkins, handkerchiefs, and other similar articles: Before removing them from the sick-room, place them in a tub, and soak them for half an hour in a WEAK SOLUTION OF CARBOLIC ACID made by mixing two and a half ounces of pure carbolic acid with one gallon

(four quarts) of water. Then remove the clothes from the room and boil them in common water for half an hour.

Burn all of the food which the patient leaves.

All discharges from the nose, mouth, kidneys and bowels must be received into vessels containing a STRONG SOLUTION OF CARBOLIC ACID which is made by mixing five ounces of pure carbolic acid with one gallon of water. The discharges must be allowed to remain in this solution for one hour before being thrown into the water closet or privy.

In case of death, wash the body with the strong carbolic solution. The burial must be private.

After the patient has recovered, or if the patient dies, after the body has been removed, disinfect the room which the patient has occupied in the following way : Remove from the room and boil all crockery, silver or plated ware ; all cotton, linen or woolen articles which have been in the room must be soaked in the weaker solution of carbolic acid for half an hour and boiled, as previously directed. Open the windows and allow the dust in the room to settle. Then wash the woodwork, floors, windows and furniture with the weaker solution of carbolic acid, made by mixing two and a half ounces of pure carbolic acid with one gallon of water. Be especially careful to wash the dust from over the doors and windows. Remove all paper from the walls and burn it. Then either whitewash, paper, or paint the walls and ceiling. All bed-ticking, mattresses, pillows and all upholstered parts to furniture must be sponged with the weaker carbolic acid solution, and then taken out and thoroughly beaten and brushed. Finally, after these directions have been carried out, the room should be thoroughly aired for two days, by opening the doors and windows.—*New Haven (Connecticut) Board of Health.*

ALL PHYSICIANS IN NORTH CAROLINA must register with the Clerk of the Superior Court of their county before January the 1st, 1890, if they intend to practice thereafter and collect their fees for services rendered. There will be no subterfuge allowed. The law must be enforced.

Scarlet Fever Must be Quarantined.

For the past few months scattering cases of scarlet fever have been reported. We would remind the superintendents of health that it is a disease which should be quarantined against, and we invite their attention to an article in this issue giving means for preventing the spread of scarlet fever and diphtheria, and commend it to their careful perusal.

In section 9 of this act creating the Board, Code of 1885, inland quarantine is defined as follows :

Sec. 9. Inland quarantine shall be under the control of the county superintendent of health, who, acting by the advice of the local board, shall see that diseases dangerous to the public health, viz., small-pox, scarlet fever, yellow fever and cholera, shall be properly quarantined or isolated at the expense of the city, or town, or county, in which they occur. Any person violating the rules promulgated on this subject shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined or imprisoned at the discretion of the court. In case the offender be stricken with disease for which he is quarantinable, he will be subject to the penalty on recovery, unless in the opinion of the superintendent it should be omitted. Quarantine of ports shall not be interfered with, but the officers of the local and State boards shall render all the aid in their power to quarantine officers in the discharge of their duties, upon the request of the latter.

The Youthful Craving for Food an Indication of Health.

The relation between appetite and digestion is in general a fairly definite one. At the same time it must be allowed that this rule is largely modified by exceptions. Many persons are subject to morbid craving to eat, which food cannot satisfy; and most of us know something of the appetite of idleness, or of habit, or of nervous disturbance, the latter bearing a suggestive likeness to the desire for stimulants, or the fragrant weed taken to relieve mental depression. Apart from such considerations, however, there are obvious variations in the degree of normal appetite in different individuals and at different periods of life. The man of sedentary habits cannot expect to compete with one who spends a life of movement out of doors. The man and the woman differ; so do the younger and the elder, and, in a notable degree, the boy and the man. The vigorous appetite of boyhood is virtually a synonym of health. A rate of daily consumption which would in most men be gluttony, is in young growing lads almost too common to attract notice. The explanation is not difficult when we take into account two chief conditions of existence at this age—the growth going on in every organ and tissue, and a very liberal allowance of active bodily exertion. Under the circumstances a sparing rule of diet would be unnatural and injurious. There is, of course, a limit even in childhood, which it is trite to say is often and wrongly exceeded. There is no age, however, at which this form of excess is pardonable. Whatever the surplus of food taken, most of the self-indulgent youngsters have been provided by nature with a power of disposal which may largely be relied upon to correct its consequences. Measures of restriction are more wise when they are used to regulate rather the wholesomeness of food and the times of eating, than the absolute quantity consumed. It is at a later stage that we may require to apply strictly the familiar rule that one

should eat to live, and not live to eat. A degree of apparent Philistinism in the matter of wholesome food and drink is in the young both usual and judicious.—*American Analyst.*

ACCORDING to the statistical showing in regard to the mortality of children in the city of Berlin, the death-rates as regards all diseases is lower with infants which are nursed than with those which are bottle-fed. In certain diseases, however, as in those of the respiratory organs and diseases of the brain, the death-rate is only two or three times as great among the bottle-fed children, while from phthisis and the other wasting diseases it is six or seven fold. But from diseases of the digestive tract the mortality among the bottle-fed babies is the most excessive, and exceeds by seventeen or eighteen fold, and in the summer even twenty-fold, the death-rate among those who are fed from the breast.—*Deutsche Med. Woch.*

Summary of Reports from Counties for September, 1889.

Alamance—Dr. G. W. Long, Graham. Malaria and typhoid fever are our most prominent diseases. Doctors will not report. Look for improvement in the jail after a while.

Alexander—Dr. H. McD. Little. No report.

Alleghany—Dr. George Doughton, Sparta. No report.

Ashe—Dr. J. W. Colvard, Jefferson. Sanitary condition of county and public buildings very good. That of jail is much improved by a new water supply. No epidemic among men or domestic animals.

Anson—No Board of Health.

Beaufort—Dr. W. A. Blount, Washington. No report

Bertie—Dr. F. V. Dunston, Windsor. No report.

Bladen—Dr. N. Robinson, Elizabethtown. Several cases of typhoid fever. County and

public buildings in good sanitary condition. There has been an epidemic of cholera among hogs and chickens, and a few cases of staggers among horses.

Brunswick—Dr. D. B. McNeill, Supply. There has been an epidemic of hog cholera. Dysentery still prevails to a limited extent, and have had a few cases of typhoid fever. Malaria less prevalent. No improvement in jail and poor-house.

Buncombe—Dr. H. B. Weaver, Asheville. Typhoid fever and diphtheria in a light form have prevailed in some portions. Sanitary condition of public buildings very good in every detail.

Burke—Has no Board of Health.

Cabarrus—Dr. R. S. Young, Concord. Diphtheria and typhoid have been reported—three cases of the former and seven of the latter. Sanitary condition of county and public buildings good.

Caldwell—Dr. R. L. Beall, Lenoir. Diphtheria and typhoid fever—four cases of former and six of latter—have occurred in extreme southeastern part of county. Health of county has never been better. Improvements in jail and poor-house have been recommended by grand jury, but not yet instituted.

Camden—Dr. E. B. Ferebee, Belcross. No report.

Carteret—Dr. M. F. Arendell, Beaufort. A few cases of staggers among horses have occurred. Sanitary condition of county and public buildings good.

Caswell—Dr. R. H. Williamson, Yanceyville. Malarial fever has prevailed. Sanitary condition of county and public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. Sanitary condition of county and public buildings is good.

Chatham—Dr. L. A. Hanks, Pittsboro. Diphtheria and typhoid fever—two cases of former and fifteen of latter—have occurred. There has been considerable sickness in differ-

ent parts of county, due to atmospheric influence and not to local causes that can be removed. Sanitary condition of public buildings very good.

Cherokee—Dr. J. F. Abernathy, Murphy. No report.

Chowan—Dr. R. W. Winborne, Barnitz. Malarial fever of mild form has prevailed. The general health of county was never better in my recollection. Jail and poor-house in good condition and inmates all in good health.

Clay—Has no Board of Health.

Cleveland—Dr. J. C. Gidney, Shelby. No report.

Columbus—Dr. I. Jackson, Whiteville. One case of typhoid fever reported. Hog-cholera has prevailed in some portions. County and public buildings in good sanitary condition. Our county hospital will soon be ready for the reception of the inmates of our present poor-house.

Craven—Dr. Leinster Duffy, Newbern. Public buildings and county generally in good condition.

Cumberland—Dr. J. A. Hodges, Fayetteville. Malarial diseases have been prevalent all over the county and a few cases of diphtheria and whooping-cough have occurred. Jail and poor-house in good condition, no acute diseases having occurred among the inmates in over three months.

Currituck—Dr. F. W. Ritter, Moyock. Public buildings and county generally in good condition.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. The sanitary condition of the county is better than usual, and throughout the summer our county town has been remarkably clean. The people are awaking to the importance of hygienic questions. Public buildings are in good condition.

Davie—No Board of Health.

Duplin—Dr. Jas. W. Blount, Kenansville. Typhoid and malarial fevers have prevailed

in several portions. Whooping-cough in some sections. Staggers in horses is reported. The authorities are more alive to the importance of sanitation and the poor-house is in a reasonably good condition. Have no jail.

Durham—Dr. N. M. Johnson, Durham. Public buildings and county generally in good sanitary condition. Very little sickness is reported.

Edgecombe—Dr. Julian M. Baker, Tarboro. Typhoid and malarial fevers have prevailed in all parts. There has been an epidemic of hog-cholera. Two cases of hemorrhagic malarial fever. A sufficient appropriation for the erection of a county hospital has been made and the building will soon be put up.

Forsyth—Dr. D. N. Dalton, Winston. There have occurred a few cases of whooping-cough, diphtheria and typhoid fever. Sanitary condition of public buildings is excellent.

Franklin—Dr. E. S. Foster, Louisburg. Sanitary condition of county good. Malarial fevers and a few cases of typhoid have occurred. The jail is undergoing repairs.

Gaston—Dr. E. B. Holland, Dallas. Malarial fevers have prevailed all over the county.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hayes, Oxford. September has been unusually healthy this year. Have had a few cases of sporadic typhoid and a number of cases of continued fever which do not get well under quinine. What is the pathology of these continued fevers? Sanitary condition of public buildings good—that of jail being nearly perfect.

Greene—Dr. W. C. Galloway, Snow Hill. Malarial fever has been very prevalent. Two cases of diphtheria and one of hemorrhagic malarial fever have occurred. Staggers among horses and cholera among hogs have been epidemic. Horse books state that staggers and apoplexy are synonyms for the same disease, but the horses I've seen have all the train of

symptoms usual with man suffering with meningitis. Public buildings in good condition.

Guilford—Dr. R. W. Tate, Greensboro. There has been but little sickness during past month with the exception of malarial fevers. Poor-house is in pretty good condition, and hope for improvement in jail soon.

Halifax—No Board of Health.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. L. L. Johnson, Angeline. Sanitary condition of county good. Typhoid fever has been on the increase since last report—six cases in Hendersonville and three in the country; it is caused by the filthy condition of the town and drinking water, which we hope will be corrected soon when the water-works get in operation, for then most of the wells will be abandoned. Jail in good condition and new poor-house nearly completed.

Hertford—No Board of Health.

Hyde—Dr. Edward Clark, Middleton. The sanitary condition of county good. No unusual amount of sickness can be noted. Strong winds have done much to render our condition healthful. The public buildings are fairly kept, with a better condition aimed at by the authorities.

Iredell—Dr. M. H. Hill, Statesville. Two cases of typhoid fever reported. Sickness has abated considerably during September. Some malarial fever still exists. Public buildings are kept clean, but the jail is poorly constructed, except for security.

Jackson—Dr. J. M. Candler, Dillsboro. Chicken-cholera has been epidemic. Sanitary condition of county better than for years. That of public buildings as good as can be made.

Johnston—Dr. L. L. Sasser, Smithfield. Typhoid and pernicious malarial fevers—ten of former and two of latter—have occurred, and malarial diseases have prevailed. Hog-cholera has been epidemic. Public buildings and county generally are in good sanitary condition.

Jones—Dr. C. B. Woodley, Trenton. Intermittent fever has prevailed all over the county and two cases of typhoid fever have occurred.

Lenoir—No Superintendent of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. Malarial fever has prevailed in some portions, and eight cases of diphtheria have occurred. Dr. W. A. Thompson reports a lady who was delivered of a 19-pound baby two years ago, and of a 17-pounder last month—all doing well. Public buildings are kept well. Poor-house should be more roomy, but no present indications of improvement.

Macon—Dr. J. M. Lyle, Franklin. Sanitary condition of county good, except a few places in the outskirts. Two cases of typhoid fever reported. Public buildings in good condition.

Madison—Dr. J. K. Hardwicke, Marshall. Health of county not so good as usual. Ten cases of scarlatina and twenty of typhoid fever, all mild, have occurred. There has been a severe form of dysentery, and several cases of malarial fever, a disease heretofore almost unknown here. It was caused by stagnant fish ponds. Sanitary condition of public buildings is good.

Martin—Dr. W. H. Harrell, Williamston. No report.

McDowell—Dr. J. H. Gilkey, Marion. Typhoid fever and pneumonia have prevailed extensively in certain portions of county—twenty cases of the former being reported. Three cases of diphtheria also reported. Public buildings are kept in pretty good condition.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. Typhoid fever and diphtheria of a mild type have prevailed in different parts of county. Public buildings in good condition.

Montgomery—Dr. W. A. Simmons, Troy. Malarial and bowel diseases have prevailed in nearly all parts of county. Five cases of

typhoid fever reported. Jail and poor-house are in good condition.

Moore—No Board of Health.

Nash—Dr. G. W. Lewis, Spring Hope. Typhoid, typho-malarial and malarial fevers have prevailed. There has been an epidemic of hog-cholera. A few cases of dysentery reported.

New Hanover—Dr. F. W. Potter, Wilmington. Scarlatina (1 case), diphtheria (12 cases) and typhoid fever (22 cases) reported. Malarial and bowel troubles have been plentiful. Report refers exclusively to the city of Wilmington. The population of county outside the city is very small. While the condition of the poor-house is pretty good, so far as whitewash and neatness externally are concerned, conditions exist which it is hoped will be corrected as soon as brought to the attention of the commissioners. Reference is had especially to the *pen* which is known as "the stockade." It is a yard about thirty or forty feet square, having on one side a row of *dens* and on another a row of *kennels*. The yard is enclosed by a close fence about twelve feet high, so that those who have their *homes* within its walls have only their whitewashed surfaces and the blue expanse of heaven for their eyes to rest on, except, possibly, the tops of some neighboring pines. In this pen are kept the work-house prisoners, when not at work (in fact I believe this constitutes the county work-house) and such unfortunate inmates of the poor-house who are considered of unsound mind. Also, occasionally, for punishment, those who do not obey the mandates of the "keeper." In one of the "dens" above alluded to, has been kept for five or six weeks a poor wretch—a young negro woman—who sometime since scaled the walls and walked to Goldsboro, a distance of 8½ miles. She is insane without doubt, but there was certainly "method in her madness" when she attempted to find more comfortable quarters. No light reaches her except when some timid attendant cracks open the door just wide enough to slip

in her victuals and immediately closes it. Whether her clothing is ever changed I know not, but infer not. The "kennels" are hardly worthy the name, for a humane dog fancier would doubtless provide more comfortable quarters for his pets. One of them was almost too small to accommodate the frame which was nailed to one side to receive the dirty bag of straw on which a sick man slept, and the dirty excrement bucket which stood by it. The inmates of these places will surely suffer during the cold weather of the coming winter, unless something is done shortly to prevent it, for these places are very open and exposed to the north winds. I will not take any more space in the Bulletin, except to protest against the present method of providing for the poor. The contract for taking care of them is put out to the lowest bidder, and it is human nature for a man to make all he can out of a contract. New Hanover County contains the largest town in the State, and the monthly report of the Treasurer shows a balance on hand of the general fund. Did the last grand jury see the above condition of things, that existed at the time they reported the poor-house as "kept well and in good condition?" I believe not; but it was their duty to see it.

Northampton—Dr. H. W. Lewis, Jackson. Malarial troubles have prevailed in all portions of the county. Two cases of hemorrhagic malarial fever reported. Sanitary condition of county not very good. That of public buildings is good. Have no jail.

Onslow—Dr. J. L. Nicholson, Richlands. Malarial fever, mostly of the intermittent type, and whooping-cough are reported from different sections; otherwise the county is remarkably healthy for September. Jail remains in good condition. Poor-house poorly suited for invalids.

Orange—Dr. D. C. Parris, Hillsboro. Whooping-cough (1 case), diphtheria (5 cases), and typhoid fever (4 cases) are reported. Influenza is endemic, and typhoid fever shows

rather a malignant disposition. Not so much malarial trouble as was feared. Public buildings in good condition, except the arrangements for the removal of excreta from jail.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. No report.

Perquimans—No Board of Health.

Person—Dr. C. G. Nichols, Roxboro. No report.

Pitt—No Board of Health.

Polk—No Board of Health.

Randolph—Dr. J. W. Long, Randleman. Forty or fifty cases of measles and four or five of typhoid fever reported. Measles is of light form. Some distemper among horses. Jail is kept in as good condition as possible, considering the peculiar shape and *lack of ventilation of the cells*. Paupers have been well fed, but most of their rooms have been neglected. Bed bugs and dirt are abundant, and some of the buildings need whitewashing.

Richmond—Dr. P. W. Stansill, Rockingham. There has been but little sickness of any kind, except six cases of typhoid and a few of malarial fever. Condition of public buildings good, except the room for the confinement of lunatics at the poor-house.

Robeson—Dr. R. F. Lewis, Lumberton. Some typhoid fever reported. Sanitary condition of county and public buildings pretty good. Poor-house needs some repairs.

Rockingham—Dr. T. E. Balsley, Reidsville. No report.

Rowan—Dr. J. J. Summeiell, Salisbury. Malarial fevers have prevailed in some portions. A few cases of typhoid fever have occurred in different parts. The people are slowly waking up to the importance of sanitation—that is, now and then a farmer asks information as to the best place for his privy, or his well, or barn-lot, and what should be the distances between them. Poor-house is well lighted and kept in fair sanitary condition; most of the

bedding is kept clean and free from vermin. The jail, since the introduction of water-works and sewers for carrying off excreta, is in fair condition but often crowded.

Rutherford—Dr. E. B. Harris, Rutherfordton. One case of measles and three of diphtheria reported; also an epidemic of hog-cholera. Sanitary condition of county and public buildings is good.

Sampson—Dr. J. A. Stevens, Clinton. There has been an epidemic of hog-cholera and several horses have died with staggers. I have to report malarial and a few cases of typhoid fever. Measles and whooping-cough still prevalent. The sanitary condition of jail has been improved since last report; the inner walls have been whitewashed, the weeds cut down and removed and the ground covered deeply with sand.

Stanly—Dr. R. Anderson, Albemarle. There has been more typhoid than usual—six cases occurring in my practice. We have good accommodation for our paupers. Our jail is a hard old case, but it holds them "all the same."

Stokes—No Board of Health.

Surry—No Board of Health.

Swain—Dr. R. L. Davis, Bryson City. Very little sickness during September; ten cases of measles and three of whooping-cough. Condition of public buildings is moderately good.

Transylvania—Dr. D. H. Farmer, Brevard. Sanitary condition of county has much improved; only a few cases of fever (2 of typhoid) reported. Public buildings in excellent condition.

Tyrrell—Dr. Ab. Alexander, Columbia. Two cases of diphtheria and one of typhoid fever reported. Mumps was epidemic. Condition of public buildings good.

Union—Dr. W. C. Ramsay, Monroe. Sanitary condition of county good generally. A few cases of malarial and typhoid fevers reported. The jail remains in an unsanitary condition.

Vance—Dr. A. Cheatham, Henderson. There have been some typhoid, rheumatism, etc. Condition of public buildings good.

Wake—Dr. James McKee, Raleigh. Sani-

tary condition of city and county and public buildings good. People are healthy and active. Employees engaged in digging trenches for sewer pipes are cheerful and in good condition.

Warren—Dr. P. J. Macon, Warrenton. Malarial fevers have prevailed in all portions of county, and there have been a few cases of typhoid. County and public buildings in good condition.

Washington—Dr. W. H. Ward, Plymouth. No report.

Watauga—Dr. W. B. Councill, Boone. Typhoid fever in mild form has prevailed. New jail is nearing completion. Poor-house in good condition.

Wayne—Dr. Jas. Spicer, Goldsboro. No report.

Wilkes—Dr. J. W. White, Wilkesboro. No report.

Wilson—Dr. N. Anderson, Wilson. [No report on prevailing diseases.] Jail and poor-house in good condition.

Yadkin—Dr. T. R. Harding, Yadkinville. Will report for October.

Yancey—Dr. J. L. Ray, Burnsville. There has been some typhoid fever in various portions which seems to be abating. Distemper and hog-cholera have occurred. Public buildings in moderately good condition.

Summary of Mortuary Statistics from Towns for September, 1889.

	White.	Col'd.	Total.
Aggregate population	66,385	55,315	121,700
Aggregate deaths	73	113	186
Temporary annual death rate per 1,000	13.2	24.5	18.3
Deaths under 5 years	28	40	68
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	5	4	9
Malarial fever	3	10	13
Diphtheria	3	0	3
Whooping-cough	0	2	2
Pneumonia	1	1	2
Consumption	5	18	23
Brain diseases	3	6	9
Heart diseases	8	0	8
Neurotic diseases	2	3	5
Diarrhoeal diseases	9	9	18
All other diseases	18	38	56
Accident	1	2	3
Still-born	3	7	10
Total	*61	100	161
*Raleigh, white 12; colored 13, unclassified.			

Condition of Jails and Poor-houses by Counties for September, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined,	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write,	Number Inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write,
Alamance.....	6	1,000	a	a	24	600	a	a
Alexander.....	—	.....	.....	.....	.....	.....	.....	.....
Ashe.....	2	650	a	a	8	645	1	1
Alleghany.....	—	.....	.....	.....	.....	.....	.....	.....
Anson.....	*	.....	.....	.....	.....	.....	.....	.....
Beaufort.....	—	.....	.....	.....	.....	.....	.....	.....
Bertie.....	—	.....	.....	.....	.....	.....	.....	.....
Bladen.....	2	a	a	a	6	a	a	a
Brunswick.....	a	a	a	a	10	.....	a	a
Buncombe.....	20	1,000	12	14	32	750	16	15
Burke.....	*	.....	.....	.....	.....	.....	.....	.....
Cabarrus.....	8	1,007	0	0	22	915	9	10
Caldwell.....	3	1,140	0	2	8	630	1	2
Camden.....	—	.....	.....	.....	.....	.....	.....	.....
Carteret.....	5	344	0	2	0	0	0	0
Caswell.....	1	a	a	a	23	1,000	9	3
Catawba.....	5	850	2	3	30	750	9	8
Chatham.....	4	1,945	2	2	20	1,456	10	10
Cherokee.....	—	.....	.....	.....	.....	.....	.....	.....
Chowan.....	7	548	1	3	5	262	0	0
Clay.....	*	.....	.....	.....	.....	.....	.....	.....
Cleveland.....	—	.....	.....	.....	.....	.....	.....	.....
Columbus.....	5	3,326	a	2	7	624	a	0
Craven.....	14	940	5	3	29	750	0	0
Cumberland.....	18	800	11	10	20	1,000	16	12
Currituck.....	0	0	0	0	0	0	0	0
Dare.....	*	.....	.....	.....	.....	.....	.....	.....
Davidson.....	3	3,647	0	0	20	721	0	5
Davie.....	*	.....	.....	.....	.....	.....	.....	.....
Duplin.....	†	.....	.....	.....	22	a	a	a
Durham.....	12	1,000	a	5	b24	1,000	a	5
Edgecombe.....	27	610	0	3	35	2,262	0	2
Forsyth.....	26	808	8	6	18	a	3	2

a. No data given. b. Includes 11 in house of correction. — No report. * Has no Board of Health. † Has no jail.

Condition of Jails and Poor-houses by Counties for September, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin	7	700	a	1	19	600	a	1
Gaston.....	10	760	0	3	13	2,589	2	3
Gates.....	*							
Graham	*							
Granville.....	9	2,777	a	a	25	720	a	a
Greene.....	5	500	1	3	13	1,000	6	2
Guilford.....	12	500	4	7	34	1,200	9	19
Halifax.....	*							
Harnett.....	*							
Haywood.....	—					—		
Henderson.....	3	2,000	a	1	3	1,800	a	1
Hertford.....	*							
Hyde.....	a	a	a	a	a	a	a	a
Iredell.....	7	1,603	a	a	19	583	a	a
Jackson.....	2	1,000	a	a	4	2,000	2	2
Johnston.....	7	2,000	2	0	14	900	5	6
Jones.....	2	2,760	a	a	5	1,120	a	a
Lenoir.....	*							
Lincoln.....	11	701	0	5	31	345	0	8
McDowell.....	13	500	4	5	10	550	1	1
Macon.....	8	426	1	1	0	0	0	0
Madison.....	5	593	0	0	4	2,700	0	0
Martin.....	—							
Mecklenburg.....	*							
Mitchell.....	4	a	4	2	11	a	a	3
Montgomery.....	9	666	a	3	14	500	a	3
Moore.....	*							
Nash.....	4	a	1	2	37	a	18	14
New Hanover.....	a	a	a	a	23	600	18	8
Northampton.....	†				40	1,000	15	13
Onslow.....	2	2,500	0	0	4	2,500	2	2
Orange.....	2	512	1	1	33	2,048	16	9
Pamlico.....	*							

a. No data given. — No report. * Has no Board of Health. † Has no jail.

Condition of Jails and Poor-houses by Counties for September, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Pasquotank.....	*	.....	.....	.....	.....	.....	.....	.....
Pender.....	—	.....	.....	.....	.....	.....	.....	.....
Perquimans.....	*	.....	.....	.....	.....	.....	.....	.....
Person.....	—	.....	.....	.....	.....	.....	.....	.....
Pitt.....	*	.....	.....	.....	.....	.....	.....	.....
Polk.....	*	.....	.....	.....	.....	.....	.....	.....
Randolph.....	7	988	1	3	28	523	10	12
Richmond.....	9	1,008	1	7	8	1,300	10	0
Robeson.....	16	432	0	0	5	400	0	0
Rockingham.....	—	.....	.....	.....	.....	.....	.....	.....
Rowan.....	7	1,000	0	2	18	2,000	5	1
Rutherford.....	15	456	a	a	26	997	a	a
Sampson.....	4	a	a	a	19	a	a	a
Stanly.....	3	1,400	0	3	14	500	0	1
Stokes.....	*	.....	*	.....	.....	.....	.....	.....
Surry.....	*	.....	*	.....	.....	.....	.....	.....
Swain.....	0	0	0	0	0	0	0	0
Transylvania.....	4	1,300	3	4	3	2,000	1	2
Tyrrell.....	0	0	0	0	2	1,100	a	a
Union.....	7	2,000	a	2	15	2,500	a	1
Vance.....	7	1,450	3	4	15	1,144	0	3
Wake.....	19	1,425	a	a	122c	a	a	a
Warren.....	8	3,520	2	2	13	2,860	7	3
Washington.....	.....	.....	.....	.....	.....	.....	.....	.....
Watauga.....	a	a	a	a	6	a	a	a
Wayne.....	—	.....	.....	.....	.....	.....	.....	.....
Wilkes.....	—	.....	.....	.....	.....	.....	.....	.....
Wilson.....	10	1,171	a	a	22	1,191	a	a
Yadkin.....	*	.....	.....	.....	.....	.....	.....	.....
Yancey.....	5	460	0	2	0	0	0	0

a. No data given. c. Includes 62 in house of correction. — No report. * Has no Board of Health.

Meteorological Report for September, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.		Prevailing wind.			
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including half, snow and sleet (in inches).
Chapel Hill.....																
Chat'oga, Tenn.	69.1	89.0	15	40.0	20	49.0	18.6	33.0	20	5.0	1	15	6	9	14	7.87 N.W.
Charleston, S.C.	76.0	91.0	13	58.0	20	33.0	?	23.0	?	7.0	?	14	9	7	4	2.17 S.W.
Charlotte.....	70.1	89.0	15	45.0	22	44.0	19.6	37.0	22	9.0	30	10	11	9	6	3.88 N.W.
Columbia, S. C.	73.2	91.0	15	49.5	(a)	41.5	?	?	?	?	?	7	14	9	6	2.41 S. E.
Hatteras	71.0	83.0	5	57.0	22	26.0	9.0	15	26	4.0	25	15	7	8	9	5.09 N.E.
Kitty Hawk.....																
Knoxville, Tenn.	67.5	89.0	16	40.0	28	49.0	?	31.0	28	7.0	17	17	3	10	12	.574 N. E.
Lynchburg, Va..	66.7	87.0	(b)	42.0	23	45.0	?	28.0	?	4.0	?	11	11	8	12	10.69 N.
Norfolk, Va.....	68.0	88.0	6	46.0	22	42.0	13.1	25.0	26	3.0	12	8	10	12	17	5.41 N.W.
Raleigh	68.7	87.0	16	42.0	22	45.0	17.6	28.0	29	6.0	13	8	13	9	7	1.68 N.
Southport.....	71.6	86.0	16	48.0	19	38.0	?	23.0	19	5.0	22	19	6	5	3	18.0
Wake Forest.....																
Wilmington	72.0	87.0	16	48.0	22	39.0	?	26.0	?	11.0	?	15	8	7	8	3.18 N.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C ..						
Chattanooga, Tenn ..	30.095	30.417	28	29.764	23	.653
Charleston, S. C ..	30.052	30.307	29	29.763	20	.544
Charlotte, N. C ..	30.083	30.383	28	29.687	20	.696
Columbia, S. C ..						
Hatteras, N. C	30.05	30.34	29	29.70	21	.64
Kitty Hawk, N. C ..						
Knoxville, Tenn	30.100	30.427	28	29.751	20	.676
Lynchburg, Va	30.066	30.348	28	29.576	20	.772
Norfolk, Va		30.329	29	29.623	20	.706
Raleigh, N. C	30.054	30.333	28	29.662	20	.671
Southport, N. C						
Wake Forest, N. C ..						
Wilmington, N. C	30.048	30.321	28	29.704	20	.617

(a) 20th and 28th. (b) 16th and 17th.

Mortuary Report for September, 1889.

ELISHA MITCHELL SCIENTIFIC SOCIETY,

CHAPEL HILL, N. C.

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OF THE
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NOVEMBER, 1889.

NO. 8.

Punctuality in Reporting.

We would like to impress upon superintendents of health the importance of being more punctual in sending in reports. The BULLETIN has to be sent to Raleigh to be printed, and we make it a rule to send the copy from this office by the 20th of each month. Even at that late date, there are always several counties which have not been heard from and have to be left out.

A few reports come in during the first five days of the month, and by the 10th, *when all reports should be in*, about half of them have been received. At this time, a reminder is sent to all delinquents that if the omission is the result of oversight, or the fault of the mails, there may still be time to correct it.

We would much rather send off the copy by the 10th, and so issue the BULLETIN about the 20th, and with proper interest on the part of the superintendents we could do so.

Will not those reporters whose reports come straggling in after the 10th, make the very small effort necessary to get them here before that date, and so let us get the BULLETIN out earlier?

Sunshine as a Medicine.

Sleepless people—and there are many in America—should court the sun. The very worst soporific is laudanum; the very best is sunshine. Therefore it is very plain that poor sleepers should piss as many hours of the day in the sunshine, and as few as possible in the shade. Many women are martyrs, and do not know it. They shut the sun-shine out of their houses and their hearts; they wear veils; they carry parasols; they do all that is possible to keep off the subtlest and yet the most potent influence which is intended to give them strength and beauty and cheerfulness. Is it not time to change all this, to get roses and

color in our pale cheeks, strength in our weak souls? The women of America are pale and delicate. They may be blooming and strong, and the sunlight will be a potent influence in this transformation —*Evening Telegraph*.

Pure Butter, when melted without stirring, produces a pure, limpid, golden oil, retaining the butter flavor. Oleomargarine when melted smells like tallow, and a scum rises to the top. Butterine, a mixture of dairy butter and fats, when melted will exhibit the butter-oil on top; when this is poured off, the fats will be found at the bottom, whitish in color and disagreeable in smell. These are simple tests.—*Ex.*

Epidemic Diseases Among Swine.

Drs. E. O. Shakespeare, R. Meade Bolton and T. J. Burrill, a commission appointed to examine into and report on epidemic diseases among swine, have made their report to Secretary Rusk, with the following conclusions:

1. It is the opinion of the commission, based upon their individual observations and examinations of the subject, that there are at least two widespread epidemic diseases of hogs in this country which are caused by different micro-organisms, but which have a clinical history and pathological lesions more or less similar and very difficult to distinguish without the aid of the microscope, and resort to bacteriological methods; and that these two epidemic diseases have been fairly well described in the recent annual report of the Bureau of Animal Industry, except it does not appear that the "hog cholera" of these reports can be said to have its special or exclusive seat in the digestive tract of the animal as distinct from the lungs. So far as the knowledge and the observation of the commission go, one of these epidemic diseases, viz., that called by the bureau authorities "Swine plague," appears to be far less prevalent than the other, which has been named by them "hog cholera."

The commission are further of the opinion that the disease called by the authorities at Washington "hog cholera," is caused by the specific action of a certain microbe named by them "the hog cholera germ," which has certain characteristics of form, size, movement, mode of growth in artificial cultures, an action upon certain lower animals, and, taken altogether, enables one to distinguish it from other microbes which have been described from time to time by various authors as present in swine disease; and that the descriptions of this microbe and its peculiarities, as set forth in recent annual reports of the Bureau of Animal Industry, are fairly accurate.

The commission are also of the opinion, although to a less positive degree, that the epidemic disease called by the bureau authorities "swine plague," has as its specific cause a certain microbe possessing characteristics which have been fairly well described in recent annual reports of the Bureau of Animal Industry, which distinguish it both biologically and pathologically from the first mentioned "germ of hog cholera."

2. It is the opinion of the commission that the actual and undeniable proof of the pathogenic relations between the so-called "hog cholera germ" above mentioned, and the disease of hog cholera, was first published in the annual report of the Department of Agriculture for 1885, and in the second annual report of the Bureau of Animal Industry of the same year, hence was not antedated with respect to epidemic diseases of swine existing in the United States. The discovery of the disease called "swine plague," and of the microbe to which it is due, must be considered original on the part of the bureau authorities, at least as far as work in the United States is concerned.

3. In the opinion of the commission, the epidemic disease of swine investigated by Drs. Billings and Roberts in Nebraska, however seemingly indifferent in the published descrip-

tions, is identical in its clinical features, pathological lesions and specific cause with the disease investigated by the Bureau of Animal Industry at Washington, and called by the latter "hog cholera;" and, furthermore, that the pathogenic microbe, which is the specific cause of this disease, is identical in both instances. It is also their opinion that the descriptions of this germ published by each of these investigators are in the main correct. The two chief points in these descriptions upon which the above mentioned investigators have differed more or less widely, are as to some minor points of morphology and variations of the microbe upon various methods of staining.

4. It is the opinion of the commission that the microbe which Dr. Detmers at present regards as the specific cause of "hog cholera," is probably the same microbe which is considered by the bureau authorities as the specific cause of hog cholera; but according to present requirements of bacterial research and interpretation it is impossible to declare that the organism as described by him in his report published by the Department of Agriculture was the same thing.

In their observations of the methods of bacteriological research pursued by the Bureau of Animal Industry at Washington, the commission are of the opinion that, as to carefulness and precision, they are up to the standard of modern requirements concerning bacteriological investigations. They are essentially the same as those pursued at Berlin in the pathological laboratory of the imperial board of health and in the Hygienic Institute, of which Professor Koch is at the head.

From their observations of the methods of bacteriological research pursued by Dr. Billings in Nebraska, the commission are of the opinion that it was difficult, if not impossible, for that distinguished investigator, by his usual method, to discover and isolate a germ associated with "the hog cholera germ" in the tissues of the body of the pig, and this is particularly true of the so-called "swine plague"

germ, claimed by the bureau authorities to be the specific cause of the epidemic disease latterly named "swine plague." In the opinion of your commission, therefore, the failure of Dr. Billings in his researches to find the so-called "swine plague" germ in the tissues of the spleen (the organ from which he most invariably made his cultures) cannot be regarded as incontestable proof that the "swine plague" germ had no existence in the afflicted hogs which had fallen under his observation, and affords no evidence that this last named disease does not occur in Nebraska.

It is the opinion of the commission that the only proper way to test practically the real value of artificial protection against "hog cholera" is to expose the supposed protected pig to the natural acquisition of the disease under ordinary conditions, such as exist among a herd of hogs suffering from the natural disease. It is a well-known fact, brought to light by recent investigations concerning the nature of infectious diseases, that immunity or protection from a second attack, whether artificial or natural, is not absolute, but only relative in degree.

As far as our present knowledge extends, treatment of existing cases is futile. There remains, therefore, to be considered but two alternative means of prevention—quarantine and extermination of infected hogs, with their surroundings, or, on the other hand, some form of preventive inoculation.

The vast importance of the subject calls for an exhaustive investigation as early as possible of this latter means, for the former is very difficult of application.

Some of the tests made in Nebraska under the direction of Dr. Billings certainly give promise of great possibilities in this direction. It is the opinion of the commission, however, that an attempt to produce immunity from "hog cholera" artificially by the use of the living germs of the disease, either through the stomach or through hypodermic inoculation, is very objectionable, and involves a serious

risk of more widely extending the disease, and increasing rather than diminishing the enormous losses therefrom.

Means to Prevent the Spread of Typhoid Fever.

Require the patient to sleep alone. Have all food burned left by the patient. Boil all dishes for fifteen minutes immediately after the patient has finished using them. Clothing removed from the patient and bed clothing should be disinfected by soaking them for half an hour in a *weak solution of carbolic acid*, made by mixing two and a half ounces of pure carbolic acid with a gallon of water. Then remove them from this solution and boil in common water for half an hour.

All discharges from the kidneys and bowels must be received into vessels which contain about a pint of *strong solution of carbolic acid*, made by mixing five ounces of pure carbolic acid with a gallon of water. The discharges must remain in this disinfecting solution one hour before being thrown into the water-closet or privy.

All persons who handle or have anything to do with the patient, should wash their hands repeatedly with soap and water, and pay great attention to cleanliness.

The Law Will be Enforced.

The law regulating the practice of medicine in North Carolina will be strictly enforced after January the 1st, 1890. This Board will do all in its power to aid the officers of the law and the State Medical Society in seeing that all of the provisions of the law shall be rigidly carried out.

All reputable physicians entitled to practice, and who intend to practice, will see that they have complied with all of the provisions of the law in the premises, and if they have not already done so, they had better let us advise them to go and do so at once.

We will send to any one desiring it, a pamphlet containing the above law.

The charlatan and quack must go! The good people of this commonwealth in legislature assembled, have spoken in unmistakable terms, and after January the 1st, 1890, their time will be up, and "good riddance" will be the universal intelligent verdict.

Excerpts from the Transactions of the North Carolina Sanitary Association. 1889.

Common diarrhoea, as distinguished from its specific forms, e. g., cholera, occurs generally whenever drinking water is sufficiently laden with impurities to cause irritation of the alimentary mucous tract. In periods of drought and consequent supersaturation with impurities of the scanty water supply, diarrhoea and dysentery are especially prevalent, and attended with great mortality amongst children and the aged and infirm. That in most cases, diarrhoeas, sporadic and epidemic, are due to a specific poison, acting otherwise than as a simple irritant, is settled beyond a doubt; but this poisonous principle, almost certainly a germ, has not yet been definitely determined. In many cases of diarrhoea, occurring from the use of water, the pollution of the latter has been so great that its excess of organic matter could be determined by microscopical and chemical analysis, and quite frequently its odor and taste sufficed to condemn it as unfit for use.—*Dr. H. F. Bahnsen, in The Public Water Supply of Towns and Cities in North Carolina.*

Now, in our day, we are still groping, and we think that perhaps we have got results of importance. We have got it down fine on germs. We have spirilli, and bacilli, and bacteria, each producing its own form of disease. We have captured the rascals and are trying to find out their sensations when put into the various kinds of torture chambers we have invented for their entertainment. We are boiling them with moist heat and baking them

with dry heat; we are feeding them on bichloride of mercury, and generally doing our best to make them look sick, with, as I said before, results of importance.

The discovery of micro-organism concerned in the production of infectious disease, of course led naturally to experiments for their destruction, and to the application of the discoveries made to the holds of vessels, and to articles of cargo and clothing containing germs. At the quarantine station for the port of New Orleans the methods for the destruction of disease germs and consequent complete disinfection of vessels, has been practiced with great carefulness for several years, with the result of apparently giving complete protection to, not only New Orleans, but the whole Mississippi valley. At any rate, no case of yellow fever has appeared upon any vessel treated by the methods in use at that port.—*Dr. W. G. Curtis, in Maritime Quarantine.*

The purity of our foods and drugs should be a matter of paramount importance to us. It is a matter affecting both health and pocket. The sanitary officers who look after the air we breathe and the water we drink ought certainly to inspect our solid food as well. Danger does not lurk in sewer-gas or in the miasm of the marsh only, nor in contaminated wells and foul reservoirs alone. We might avoid all of these sources of disease and yet fall victims to poisons in our foods or impure medicines.

And yet it is very difficult to effectually arouse interest in this subject. An occasional newspaper article filled with sensational exaggerations gains the public attention for a brief while, and the barter and sale go on as before, and the same luck that attends the tottering footsteps of the baby and the staggering drunkard is looked to to befriend us and help us escape the greed and criminality of our fellows.

What this indifference springs from I cannot tell. Perhaps for most of our citizens the coffee or tea is so poorly prepared that the genuine article would be unrecognizable; or the fat and soda and bad cooking are productive

of such indigestion as to completely mask the effects of any mildly poisonous adulterant. The majority of people who think upon the subject at all may regard adulteration as beyond their power to check or remedy, and throw themselves upon the mercy of the more honest dealers.—*Prof. F. P. Venable, in The Necessity of State Intervention to Prevent Adulteration of Foods and Drugs.*

Review of Diseases Reported by Counties for October, 1889.

Blind staggers from Brunswick and Carteret.

*Chicken-cholera from Chatham and Jackson.

*Diphtheria from Buncombe, Caswell, Craven, Henderson, Iredell, Lincoln, Macon, McDowell, Mitchell, New Hanover, Northampton, Randolph, Rowan, Tyrrell, Vance, Watauga and Yadkin.

Dysentery from Moore.

*Erysipelas from Duplin.

Hemorrhagic malaria fever from Johnston,

*Hog cholera from Bertie, Bladen, Columbus, Johnston, Martin, Nash, Onslow, Pender and Sampson.

Malaria from Bertie, Brunswick, Caswell, Craven, Cumberland, Davidson, Duplin, Edgecombe, Gaston, Guilford, Iredell, Johnston, Jones, Montgomery, Nash, New Hanover, Orange, Sampson, Stanly, Warren and Yadkin.

Malarial meningitis from Rowan.

*Measles from Sampson and Swain.

Mumps from Sampson.

Pharyngitis follicular from Warren.

*Pneumonia from Henderson and McDowell.

*Scarlatina from Buncombe, Craven, Granville and Madison.

*Typhoid fever from Bertie, Brunswick, Buncombe, Cabarrus, Chatham, Cleveland, Columbus, Craven, Davidson, Duplin, Edgecombe, Forsyth, Franklin, Gaston, Henderson, Iredell, Jackson, Johnston, Macon, Mitchell, Montgomery, Moore, Nash, New Hanover,

Onslow, Pender, Richmond, Rowan, Sampson, Stanly, Swain, Tyrrell, Vance, Warren, Watauga, Yadkin and Yancey.

*Whooping-cough from Cherokee, Henderson, Jackson, Macon, Madison, Montgomery, Wayne and Yadkin.

Summary of Mortuary Statistics from Towns for September, 1889.

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population	52,900	45,200	98,100
Aggregate deaths	65	84	149
Temporary annual death rate per 1,000	14.7	22.3	18.2
Deaths under 5 years	36	32	68
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	2	2	4
Scarlet fever	1	1	2
Malarial fever	4	7	11
Diphtheria	3	0	3
Whooping-cough	1	3	4
Measles	0	2	2
Pneumonia	4	3	7
Consumption	8	10	18
Brain diseases	2	5	7
Heart diseases	6	7	13
Neurotic diseases	0	5	5
Diarrhoeal diseases	4	5	9
All other diseases	18	28	46
Accident	2	2	4
Still-born	10	4	14
Total	65	84	149

Summary of Reports Received from Counties for the Month of October, 1889.

Alamance—Dr. G. W. Long, Graham. Reports less sickness than he has ever known at this season.

Anson—No Board of Health.

Alexander—Dr. McD. Little, Taylorsville. No report.

Ashe—No Board of Health.

NOTE.—All diseases marked thus * are considered dangerous to the public health, and should be reported promptly.

Alleghany—Dr. Geo. Doughton, Sparta. No report.

Beaufort—Dr. W. A. Blount, Washington. Health of county good, so far as I can learn. No reports are made by any physician. Jail is not in good condition—greatly overcrowded; yet the authorities will not take steps to correct it. Poor-house cleanly and well kept.

Bertie—Dr. H. V. Dunston, Windsor. No epidemic has prevailed among the people. There has been an epidemic of hog cholera. Some cases of malaria and typhoid fever have occurred. Jail has recently been put in excellent condition.

Bladen—Dr. N. Robinson, Elizabethtown. There has been an epidemic of hog cholera. Sanitary condition of county and public buildings good.

Brunswick—Dr. D. B. McNeil, Supply. Comparatively little sickness during month. A few cases of typhoid and malarial fevers have been reported. "Blind staggers" has killed a few horses. No change in condition of public buildings.

Buncombe—Dr. H. B. Weaver, Asheville. Scarletina (seven cases), diphtheria (one case), and typhoid fever (five cases), have been reported. There have been one or two deaths from typhoid. The scarlet fever so far has been mild. The cases have been isolated and the disease will not spread.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Typhoid (four cases) reported. Sanitary condition of county and public buildings is good.

Caldwell—Dr. R. L. Beall, Lenoir. The county is remarkably healthy. Less sickness than for years past. No efforts are being made toward the repair of public buildings.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. General sanitary condition of county

good. That of public buildings is fine. Everything nice and clean. Houses have suffered from "blind staggers."

Caswell—Dr. R. H. Williamson, Yanceyville. The county is in pretty fair condition. Have been trying to clean out the creeks but have not finished yet. A few cases of malaria and diphtheria have occurred. Public buildings in good condition.

Catawba—Dr. J. M. McCorkle, Newton. Sanitary condition of county is good. Less sickness of any kind than for some time. Poor-house in good condition. Enlargement of jail is under consideration.

Chatham—Dr. L. A. Hanks, Pittsboro. There is now but little sickness in the county. Ten cases of typhoid fever reported. Chicken cholera has prevailed in some sections. Condition of public buildings is very good.

Cherokee—Dr. J. F. Abernathy, Murphy. An epidemic of whooping-cough and measles has prevailed. Hog cholera has prevailed for more than five years. The fever epidemic has abated. Owing to the low situation of the jail the floors are very damp. But for this it would be a model building. School-houses are in fair sanitary condition.

Chowan—Dr. R. W. Winbourne, Barnitz. No contagious disease has prevailed nor has there been any epidemic among animals. The sanitary condition of county has never been better.

Clay—No Board of Health.

Cleveland—O. P. Gardner, Shelby. Three cases typhoid fever reported. Sanitary condition of county and public buildings good.

Columbus—Dr. Isaac Jackson, Whiteville. Typhoid fever has prevailed to a limited extent in some portions of county. There has been an epidemic of hog cholera in some sections. Sanitary condition of public buildings is good. County hospital will be finished shortly.

Craven—Dr. Leinster Duffy, Newbern. There have occurred a few cases of typhoid fever and one case each of scarlatina, and diphtheria. Malarial fever of mild type has prevailed. Public buildings are kept in fair condition.

Cumberland—Dr. J. A. Hodges, Fayetteville. Malarial diseases have been very prevalent throughout the county—more deaths than for several months previous. All the public buildings are in first-class condition, with no sickness among the inmates.

Currituck—Dr. F. W. Ritter, Moyock. Health of county good.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. No physicians report, but from personal observation believe the general sanitary condition improved over former years. We are having some malaria and a few scattered cases of typhoid fever. Condition of poor-house good. By reason of faulty construction, it is impossible to keep jail free from bad odors. No efforts at improvement.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. The general sanitary condition of county good. A few cases of typhoid and malarial fevers. Erysipelas more prevalent than usual. Poor-house in good condition. Have no jail.

Durham—Dr. N. M. Johnson, Durham. There has been less sickness than for years at this season of the year. Public buildings in good condition.

Edgecombe—Dr. J. M. Baker, Tarboro. Typhoid and malarial fevers have prevailed.

Forsyth—Dr. D. N. Dalton, Winston. One or two cases of typhoid fever have occurred. Sanitary condition of county and public buildings is good.

Franklin—Dr. E. S. Foster, Louisburg. There is very little sickness indeed. Two cases of typhoid fever reported. Jail and poor-house are now undergoing repairs.

Gaston—Dr. E. B. Holland, Dallas. Malarial and typhoid fevers have prevailed in most portions.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hayes, Oxford. October has been a remarkably healthy month. I hear of a few cases of scarlatina, and one case, of mild type, occurred in my own practice. Public buildings all in good condition.

Greene—Dr. W. C. Galloway, Snow Hill. County in good sanitary condition. That of public buildings is very fair.

Guilford—Dr. Ed. R. Michaux, Greensboro. The health of the county has been excellent, except some malaria and a few cases of tonsillitis. Sanitary condition of public buildings is good. The jail is kept clean and the poor-house is not crowded.

Halifax—No Board of Health.

Harnett—No Board of Health.

Henderson—Dr. L. L. Johnson, Angeline. Sanitary condition of county very good. Have had six cases of pneumonia, with one death; four cases of typhoid, with two deaths. Whooping-cough of mild type in all parts of county. One case diphtheria. Our jail is as neat and clean as circumstances will permit. A contract for a new one has been awarded. New poor-house just completed, and is one of the best in the State.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. Diphtheria (one case) and typhoid fever (two cases) have occurred; also, two cases of pneumonia and a number of malarial fever. Sanitary condition of county is very good. Jail is still in bad condition, due to faulty construction, and no efforts to improve it are being made.

Jackson—Dr. J. M. Candler, Dillsboro. Whooping-cough has prevailed. One case of typhoid reported. There has been an epi-

demic of chicken-cholera. County and public buildings in good sanitary condition.

Johnston—Dr. L. L. Sasser, Smithfield. Typhoid fever (six cases) and hemorrhagic malarial (one case) reported. Malaria has prevailed. There has been a mild epidemic of hog cholera. Public buildings in good condition.

Jones—Dr. C. B. Woodley, Trenton. Malaria has prevailed in all portions. Sanitary condition of county, as far as can be learned, is good; that of public buildings good also.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. A few cases of diphtheria reported from the southern section of county. Health of county was never known to be better. Health of inmates of public buildings has been good.

Macon—Dr. J. M. Lyle, Franklin. The sanitary condition of county is fairly good. Whooping-cough (eight cases), diphtheria (ten cases), and typhoid fever (six cases), have been reported. Public buildings in good condition.

Madison—Dr. J. K. Hardwicke, Marshall. About fifty cases of whooping cough and twenty-five of scarlatina have occurred. County and public buildings in good condition.

Martin—Dr. W. H. Harrell, Williamston. Sanitary condition of county good. There has been an epidemic of hog cholera.

McDowell—Dr. J. H. Gilkey, Marion. Diphtheria (fifteen cases) and Pneumonia have prevailed in some portions; with these exceptions the health of the county has been very good. Public buildings continue in good condition.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. Diphtheria (three cases) and typhoid fever (five cases) have been reported. Sanitary condition of county and poor-house is good; that of jail not so good.

Montgomery—Dr. W. A. Simmons, Troy. Four cases of typhoid fever and fifty of whoop-

ing-cough reported. Malarial and bowel troubles have prevailed in nearly all parts of the county. There is not much need'd in the condition of public buildings.

Moore—Dr. Gilbert McLeod, Carthage. Three cases of typhoid fever reported. Dysentery in a mild form has prevailed in different parts. Our towns are not in as good sanitary condition as they should be. One death reported from typhoid. Some repairs have been made at poor-house; more needed.

Nash—Dr. G. W. Lewis, Spring Hope. Typhoid and typho-malarial fevers have prevailed in different portions; also, malarial fevers. There has been an epidemic of hog cholera. The county seems in better sanitary condition than for some time. Public buildings continue in good condition.

New Hanover—Dr. F. W. Potter, Wilmington. Diphtheria (two cases), typhoid fever (six cases), and pernicious malarial (one case), have been reported. The health of county is very good. A few cases of diarrhoea and malarial fever constitute the principle trouble. Jail is kept in a clean condition, and no sickness exists among the prisoners. They are furnished, each one pound of meat and one of bread, and water, as desired, from the water-works (Cape Fear River water). The inmates of poor-house and house of correction have cistern water, and one pound fat meat and one pound of corn-bread daily.

Northampton—Dr. H. W. Lewis, Jackson. One case of diphtheria reported. No special disease has prevailed. Sanitary condition of county good as usual at this season. The Commissioners are having the apartments at the poor-house improved and made warm and comfortable for the winter.

Onslow—Dr. J. L. Nicholson, Richlands. Sanitary condition of county remarkably good. Whooping-cough has prevailed and a few cases of typhoid fever have occurred. Jail kept clean. Poor-house still sadly in need of im-

provements to make it suitable for invalid inmates.

Orange—Dr. D. C. Parris, Hillsboro. Two cases of pernicious malarial fever have occurred. Malaria has prevailed in northern and southern portions of county. Sanitary condition of county is good—no pestilential diseases have prevailed. Condition of jail is only moderately good, and there are efforts being made to improve it. That of poor-house is good.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. Good health has prevailed in nearly all portions of county. Eight cases of typhoid fever reported. There has been an epidemic of hog cholera. There is a steady improvement in the sanitary condition of Pender. The inhabitants are paying more attention to good air and good water, and to other sanitary matters, and the health improves. Public buildings in good condition.

Pitt—Dr. F. W. Browne, Greenville. No report.

Polk—No Board of Health.

Randolph—Dr. J. W. Long, Randlemann. General health of county good. Diphtheria has prevailed to some extent along the river.

Richmond—Dr. W. W. Covington, Rockingham. Three cases of typhoid fever reported. Health of this portion of county is good. The room for the confinement of lunatics at the poor-house is not suitable.

Robeson—Dr. R. F. Lewis, Lumberton. Sanitary condition fair. Little sickness of any kind prevailing.

Rockingham—Dr. T. E. Balsley, Reidsville. No report.

Rowan—Dr. J. J. Summerell, Salisbury. From the two reports received we learn of one case of diphtheria, one of typhoid fever and one of malarial meningitis. I think our people are learning to appreciate sanitary teaching,

and are making some advance in decent, sensible living. Better farms, better houses and better arranged farm-houses strike the eye everywhere in passing through the country. Some farmers, about to build, now and then ask their physicians about the sanitary condition—where to locate the well, the privy, the pig-sty and barn. Public buildings in good condition.

Rutherford—Dr. E. B. Harris, Rutherfordton. The health of this vicinity is splendid—indeed nothing to report. Public buildings in good condition.

Sampson—Dr. J. A. Stevens, Clinton. There has been an epidemic of hog cholera. The sanitary condition of county is fairly good. There have been a few cases of typhoid and much malarial fever. Some cases of mumps and many of measles. The condition of jail is about as good as we can hope for until a new one is built in a better location. Poor-house is well kept.

Stanly—Dr. R. Anderson, Albemarle. The health of our people is very good, there being no contagious diseases prevalent. Malaria and a few chronic cases make up the bulk of the sickness. Some of the school-houses in western Stanly are not fit for service in cold weather, in fact, two or three of them are not much better than an average manger.

The above is from a report made by Dr. D. P. Whitley, Big Lick, in the western part of county. I have had reported three cases of typhoid fever.

Stokes—No Board of Health.

Surry—No Board of Health.

Swain—Dr. R. L. Davis, Bryson City. One case of typhoid fever and thirty of measles reported. Sanitary condition of county is better this month than it has been for years. No sickness except measles in a light form. Condition of public buildings continues fairly good.

Transylvania—Dr. D. H. Farmer, Brevard. Sanitary condition of county is very much improved. Public buildings have undergone all necessary repairs and are in excellent order.

Tyrrell—Dr. Ab. Alexander, Columbia. Diphtheria (four cases), typhoid fever (three cases), and pernicious malarial fever (two cases), have occurred. The health of the county is very good. There have been only nine deaths in the county this year. Public buildings in good sanitary condition.

Union—Dr. W. C. Ramsay, Monroe. The sanitary condition of the county for the past month has been most excellent. Condition of jail still bad.

Vance—Dr. A. Cheatham, Henderson. Diphtheria (two cases) and typhoid fever (three cases) reported. There have been some improvements made at jail, such as new heaters, bedding, &c. New buildings have been erected at the poor-house and the old ones improved. New beds and bedding have been put in.

Wake—Dr. Jas. McKee, Raleigh. The sanitary condition of city and county is exceptionally good. Public buildings are all in good condition. No epidemic of infectious or contagious disease has occurred among our people.

Warren—Dr. P. J. Macon, Warrenton. Follicular pharyngitis and malarial fevers have prevailed. Sanitary condition of county was never better. One case typhoid fever reported. Public buildings in excellent condition.

Washington—No Board of Health.

Watauga—Dr. W. B. Councill, Boone. Diphtheria (ten cases) and typhoid fever (five cases) reported. The diphtheria prevailed in only one township. Sanitary condition of county is good every way. The epidemic of diphtheria is not attributable to any unsanitary condition of that locality. There have been several deaths. The typhoid has been of mild type, with no deaths. The new jail will be ready for use in ten days and is built on the most approved plan.

Wayne—Dr. Jas. Spicer, Goldsboro. Whooping-cough (ten cases) has occurred. Condition of county better than for years. Condition of public buildings is good.

Wilkes—Dr. J. W. White, Wilkesboro. No report.

Wilson—Dr. N. Anderson, Wilson. Jail and poor-house in good sanitary condition. [No report on prevailing diseases. SEC.]

Yadkin—Dr. T. R. Harding, Yadkinville. Sanitary condition of county is good, except a small area in central portion, where there has been much pernicious malarial fever. Whooping-

cough, diphtheria and typhoid fever have occurred also. Condition of jail is not first rate—poor-house is good; some needed repairs will soon be made.

Vancey—Dr. J. L. Ray, Burnsville. Three cases typhoid fever reported. Sanitary condition of county is very good now. That of public buildings moderately good.

Condition of Jails and Poor-houses by Counties for October, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	8	1,000	?	?	27	600	?	?
Alexander.....								
Ashe.....								
Alleghany.....								
Anson.....	*							
Beaufort.....	20	521	?	?	14	700	?	?
Bertie.....	1	a	?	0	9	a	?	?
Bladen.....	2	?	?	?	6	?	?	?
Brunswick.....					10	?	?	?
Buncombe.....	20	800	10	12	30	700	20	15
Burke.....								
Cabarrus.....	8	2,002	0	3	21	1,070	10	8
Caldwell.....	6	715	3	4	8	630	0	2
Camden.....								
Carteret.....	0	0	0	0	6	0	0	0
Caswell.....	3	500	?	?	23	1,000	9	3
Catawba.....	6	450	2	4	29	775	9	8
Chatham.....	3	2,000	1	2	20	1,464	10	10
Cherokee.....	7	1,173	4	6	1	2,304	0	0
Chowan.....	1	?	0	0	4	?	0	0
Clay.....	*							
Cleveland.....	5	684	?	2	22	997	?	5
Columbus.....	3	5,526	0	0	6	729	0	0
Craven.....	26	540	5	?	29	750	3	?
Cumberland.....	20	800	16	18	16	1,000	9	12
Currituck.....	*							
Dare.....								
Davidson.....	3	3,645	0	0	21	721	0	4
Davie.....								
Duplin.....	†				21	?	?	?
Durham.....	22b	1,000	0	8	14	1,000	0	2
Edgecombe.....	22	754	0	3	32	2,475	0	2
Forsyth.....	18	900	8	6	16	?	4	2

a. Gives square dimensions b. Includes 17 in house of correction. * No report received.

† Has no jail.

Condition of Jails and Poor-houses by Counties for October, 1889. (CONTINUED.)

Condition of Jails and Poor-houses by Counties for October, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	0	0	0	0	5	?	2	3
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	5	?	2	5	26	?	10	9
Richmond.....	9	1,008	?	?	9	1,300	?	?
Robeson.....	17	406	0	0	9	800	0	0
Rockingham.....								
Rowan.....	10	750	2	4	18	2,000	2	1
Rutherford.....	15	456	?	?	26	997	?	?
Sampson.....	1	?	?	?	22	?	?	?
Stanly.....	3	1,500	0	2	12	?	0	1
Stokes.....								
Surry.....								
Swain.....	0	0	0	0				
Transylvania.....	3	1,300	1	3	4	2,000	2	2
Tyrrell.....	0	0	0	0	2	1,100	?	0
Union.....	2	2,000	?	1	17	2,500	?	3
Vance.....	4	2,544	1	2	14	*3,000	?	3
Wake.....	10 ^a	2,706	?	?	53	?	?	2
Warren.....	4	2,860	3	3	12	2,640	6	1
Washington.....								
Watauga.....	2	b	0	0	6	b	0	0
Wayne.....	8	856	5	6	14	1,650	6	4
Wilkes.....								
Wilson.....	10	1,171	?	?	22	1,082	2	3
Yadkin.....	9	420	0	1	19	500	0	7
Yancey.....	2	1,152	1	1	0	0	0	0

^a. 59 inmates of house of correction are working on public road. ^b. Gives square dimensions.

Meteorological Report for October, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.						
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
Chapel Hill.....																	
Chat'oga, Tenn.	58.4	82.0	3	35.0	29	47.0	21.9	35.0	9	3.0	27	16	8	7	8	1.38	N.
Charleston, S. C.	64.0	86.0	1	43.0	8	43.0	?	25.0	?	8.0	?	20	8	3	3	0.73	N.
Charlotte.....	58.5	82.0	1	34.0	8	48.0	22.6	32.0	10	11.0	14	16	11	4	4	1.53	N.
Columbia, S. C.	62.9	84.5	1	36.5	9	48.0	?	?	?	?	?	18	10	3	3	3.62	N.
Hatteras	61.0	78.0	1	46.0	15	32.0	9.0	18.0	31	5.0	24	21	3	7	8	4.84	N.
Kitty Hawk.....																	
Knoxv'le, Tenn.	55.0	80.0	1	39.0	8	50.0	?	33.0	9	2.0	27	15	9	7	7	1.81	N. E.
Lynchburg, Va..	54.4	81.0	12	33.0	25	48.0	?	37.0	?	4.0	?	14	8	9	9	4.90	N.
Norfolk, Va.....	57.8	81.0	1	40.0	9	41.0	14.7	26.0	12	4.0	14	12	9	10	12	7.56	N.W.
Raleigh	57.6	82.0	1	34.0	9	48.0	20.3	31.0	(a)	7.0	14	15	5	11	8	3.41	N.
Southport.....	62.6	81.2	4	40.1	8	41.1	13.9	23.1	24	7.1	27	17	6	8	5	4.98	N.
Wake Forest.....																	
Wilmington	61.0	83.0	1	37.0	8	46.0	?	30.0	?	8.0	?	16	8	7	7	3.87	N.

BAROMETER.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C						
Chattanooga, Tenn	30.138	30.368	8	29.760	25	.638
Charleston, S. C	30.074	30.288	8	29.734	26	.554
Charlotte, N. C	30.092	30.331	8	29.688	27	.643
Columbia, S. C	?	?	?	?	?	?
Hatteras, N. C	30.050	30.330	22	29.730	27	.600
Kitty Hawk, N. C						
Knoxville, Tenn	30.140	30.398	8	29.781	25	.617
Lynchburg, Va	30.076	30.342	22	29.589	27	.753
Norfolk, Va	30.050	30.342	22	29.639	27	.703
Raleigh, N. C	30.066	30.237	22	29.586	27	.721
Southport, N. C						
Wake Forest, N. C						
Wilmington, N. C	30.059	30.299	22	29.705	27	.594

(a) 9th and 17th.

Mortuary Report for October, 1889.

ELISHA MITCHELL SCIENTIFIC
CHAPEL HILL N. C.

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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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VOL. IV.

DECEMBER, 1889.

NO. 9.

Excerpts from the Transactions of the North Carolina Sanitary Association, 1889

THE sanitary requirements of a public water supply are only two in number, viz :

First. *Purity*—*i. e.*, absolute freedom from apparent and possible, both present and future, contamination and pollution. This necessitates undisputed control and watchful supervision of the water-shed and the surface area supplying it.

Second. *Quantity*—*i. e.*, water in sufficient abundance and cheap enough to be used freely for domestic purposes by all classes. This requirement can only be met when the water-works are owned by the town. Such ownership would result in the closing of private wells and springs, which are always liable to pollution.—*Dr. H. T. Bahnsen*, in “*The Public Water Supply of Towns and Cities in North Carolina*.”

ADVANCE in civilization is founded on enlightened self-interest. The people have a right to protest against any demands on them,

unless there be promise of profitable returns, and to demand of the government the protection of their lives, their health, and their fortunes.

The real wealth of a people is not counted by its gold, silver and acres. These are sources of material interest and physical greatness; above these, as high as the heaven is above the earth, as a simpler question of value, is the health of the people. Here is the manhood, the real civilization, the source of its content, happiness, and its good will to men.—*Dr. J. W. Jones*, in “*Some Gains from Sanitation*.”

“WE LIVE or we die—live well or miserably—live our full term, or perish prematurely, according as we shall wisely or otherwise determine.”

Dr. Henry MacCormac has left this truism as a monument to his superior intelligence, and to his studied appreciation of the perfect development of Nature, as designed in Divine creation when it was given to mankind to enjoy or abuse—a free agency of the effects of creation and the natural laws thereof.

The various diseases by which humanity is enfeebled, both bodily and mentally—languishes in most intense suffering, and is brought to premature death—are not our natural heritage, but the perversion of a glorious heritage by man's abuse and neglect of the laws and demands of nature.—*J. L. Ludlow, C. E., in "The Sewerage of Cities and Towns."*

A Mistaken Idea

We are in receipt of a letter from one of our Superintendents of Health, which gives an example of the sad lack of information on the importance of sanitation and an organized effort against the ravages of disease, that exists among the people in so many counties of our State.

Our correspondent says he has just succeeded in inducing the county commissioners to give a salary, and, that now they have made it a mere pittance, with the avowed hope of abolishing the office by thus starving out the Superintendent. He said, they claimed there is no good in such an office, that it is taxing the people for nothing, &c. They referred to the fact that in the BULLETIN there are counties designated as having no Board of Health and *give that as a reason that such an institution was not needed.*

Here is a new light, in which to look at these statements—that because our neighbor errs, we are justified in doing so—that because he sees fit to “stick his head into the fire,” that it is an advisable thing for us to do.

Our idea in publishing these delinquents was far different from this. We have done so that it might be a constant reminder to them that they had not complied with the laws of the State, which do not leave it optional with counties, but says, “there shall be a Board of Health in such county;” also, that putting before the public the fact that these counties are so far behind the times in a matter of such vital importance to their citizens, and which experience and statistics prove to be so instrumental in the saving of life, the prevention of

sickness, and, therefore, the saving of money, might touch the pride of the more progressive and intelligent people of those counties, and make them demand the protection the laws provide for.

Think of the advantages of a well organized Board of Health as regards the one subject of immigration. A man desiring to carry his family into a new country in these days, makes the death-rate one of the first subjects of inquiry. Would he choose for his home a county where the frightful contagious diseases may spring up and have full sway, traveling from house to house, and cutting down, like weeds, the flower of the land; or would he not rather select that one where the deadly march of these diseases is met by an organized resistance; where, as soon as a case of contagious disease is discovered, it is reported and isolated, and its spread prevented—if necessary, a committee from the State Board of Health being sent to give their assistance in devising a plan for blotting out the disease?

Let those who regard the expense attaching to the office of Superintendent of Health as unnecessary and extravagant, bring the matter home to their own firesides. Should the prattling child that enlivens your home be snatched from your side by diphtheria or scarlet fever, those dread scourges of childhood whose presence in the neighborhood causes the parent's heart to stand still with fear; or should typhoid fever claim for its prey the son or daughter just arrived at adult life, and in whose career you had placed so much hope, would you not consider that expense insignificant if it would have saved to you the life that you valued above all price?

These diseases can be prevented, and in those communities where health boards are well organized, thousands of lives are yearly saved, as can be proven by statistics that cannot be doubted. Those communities are reaping the benefits of modern thought and science.

Those counties having no Superintendent of Health have to pay for the medical attention to jail and poor-house, so that the salary of an

officer whose duties would include those services, besides that of being the sanitary officer to the county, would not be greatly in excess of the present expense, and give a more satisfactory service.

A Move to Keep Out Leprosy from the United States.

CONCORD, N. H., Nov. 28, 1889.

At a meeting of the American Public Health Association, held at Brooklyn, N. Y., October 22-25, 1889, the following resolutions were adopted:

"Resolved, That this Association, recognizing the admirable precautions taken by the United States Marine Hospital Service and by the State Board of Health of Florida to prevent the introduction of yellow fever into this country, respectfully request Supervising Surgeon-General Hamilton, of the United States Marine Hospital Service, the honorable the State Board of Health of Florida, and all quarantine commissioners of ports having intercourse with Cuban ports, to exercise the same vigilance with regard to leprosy that is already observed in the case of yellow fever during what is known as the quarantine season.

"Resolved, That the Secretary be instructed to transmit copies of the above resolution to the several officials therein indicated."

The foregoing resolution is herewith transmitted, in accordance with the instructions given by the association.

Respectfully,

IRVING A. WATSON,
Sec. Am. Pub. Health Ass'n.

Protection from Infectious Diseases.

Protection from infectious diseases in a community cannot be secured by dependence upon individual voluntary action. There must be authority to compel obedience to necessary sanitary regulations. Individual acting, without order or skilled direction, are, in most cases, a

mob. The systematic control of infectious diseases, depends upon a few cardinal principles, the chief of which are—first, immediate NOTIFICATION to the health authorities of the occurrence of such disease. (It should be as prompt as a fire-alarm). Next, the ISOLATION, if necessary, of the sick, and providing for their proper care without exposing others; and, finally, the DISINFECTION of whatever may proceed from such sick persons that might carry the disease to others. In addition to these means, the strictest attention to cleanliness should everywhere be required, because of the well-proven fact that the spread of infectious diseases is greatly assisted by the presence of filth. Hippocrates said, two thousand years ago, that a pure air, a pure water, and a pure soil, were the essential requisites for health.

The time will come when a death from typhoid fever will be considered as proper a subject for a coroner's investigation as a death by any other poison. It only requires the rigid application of laws already recognized, to reduce to a very inconsiderable amount the sickness and deaths from most of the infectious diseases. By proper means they are preventable, and always some one is responsible for their occurrence.

* * * * *

If one-half of the care and vigilance exerted in making railroad traveling safe were also used in making communities safe from zymotic diseases, the mortality from those diseases would be reduced to less than one-quarter its present amount.

Railroad corporations are compelled to pay damages in good money to their unfortunate passengers for injuries received on their roads; and for loss of life, a few thousand dollars to surviving relatives. There is nothing on earth so almighty to control and direct the attention and efforts of men as the almighty dollar.

Whenever our State legislatures get so far enlightened as to make communities responsible for the suffering of their fellow-citizens

by infectious diseases, and compel payment to every sufferer, from the public treasury, then public hygiene will receive the attention which its importance demands. Individuals cannot alone control the spread, or prevent the invasion, of contagious diseases. It can only be done by the united and concerted action of communities, acting under authority. Hence, communities are responsible, morally, for the presence and prevalence of contagious diseases, and ought to be held so pecuniarily.

There is better reason for paying such victims of disease than there is for paying damages to people who slip on icy sidewalks and hurt themselves. The town treasures would suffer for a time. But very soon town boards of health would become an important department of town government. The members of such boards would be more considerably appointed than at present. Sanitary engineering, in the way of sewers, aqueducts, drainage schemes, etc., would be going on all over the State, to save the expense of paying for so much sickness, and the State would rival the railroad companies in the care and vigilance given to sanitary matters, and with corresponding good results.

The final consequence would be, and in a very few years, a great reduction of sickness, and in confirmation of the old adage, that "public health is public wealth," we should enjoy a heightened degree of prosperity, and greater happiness than ever before.—*Lecture before the Y. M. C. A., by C. A. Linsley, M. D.*

Review of Diseases Reported by Counties for November, 1889.

Bronchitis—Alleghany, Johnston, McDowell and Orange.

Diphtheria—Alleghany, Ashe, Caswell, Forsyth, Macon, New Hanover, Pender, Sampson, Tyrrell, Wake and Yadkin.

Distemper—Jackson.

Dysentery—Montgomery and Rowan.

Erysipelas—Orange.

Hog Cholera—Bladen, Caldwell, Chatham, Columbus, Davidson, Forsyth, Johnston, Macon, Mitchell, Nash, Northampton, Pender, Richmond, Rowan, Swain and Yancey.

Malarial Fever—Alamance, Caswell, Craven, Gaston, Guilford, Orange and Sampson.

Malarial Fever, Hemorrhagic—New Hanover and Pender.

Malarial Fever, Pernicious—Orange and Pender.

Measles—Cherokee, Sampson, Swain and Wayne

Meningitis—Orange.

Mumps—Caldwell and Sampson.

Pneumonia—Alleghany, Ashe, Caldwell, Caswell, Chatham, Cherokee, Craven, Henderson, McDowell, Orange, Rowan and Sampson

Scarlatina—Alleghany, Madison, Rowan and Wayne.

Typhoid Fever—Alamance, Ashe, Cabarrus, Chatham, Cleveland, Columbus, Franklin, Gaston, Guilford, Henderson, Johnston, Macon, McDowell, Nash, New Hanover, Pender, Randolph, Richmond, Rowan, Sampson, Tyrrell and Yadkin.

Varicella—Davidson and Rowan.

Whooping-cough—Cherokee, Henderson, Montgomery, Moore, Rowan, Swain and Wayne.

Summary of Mortuary Statistics from Towns for November, 1889.

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population	52,700	50,100	102,800
Aggregate deaths	49	81	130
Temporary annual death rate per 1,000	11.1	19.4	15.3
Deaths under 5 years	15	39	45
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	2	4	6
Malarial fever	3	4	7
Diphtheria	2	0	2
Whooping-cough	1	1	2
Pneumonia	3	4	7
Consumption	4	14	18
Brain diseases	3	5	8
Heart diseases	5	5	10
Neurotic diseases	0	3	3
Diarrhoeal diseases	6	2	8
All other diseases	16	31	47
Accident and violence	2	3	5
Suicide	0	1	1
Still-born	2	4	6
Total	49	81	130

Summary of Reports from County Superintendents of Health for November, 1889.

Alamance—Dr. George W. Long, Graham. There have been some typhoid and malarial fevers of a manageable character. New workhouse; jail not in good condition.

Alexander—Dr. H. McD. Little, Taylorsville. No report.

Alleghany—Dr. George Doughton, Sparta. Scarlatina (ten cases) and diphtheria (twenty cases) have been reported. Also a few cases of pneumonia and bronchitis. Sanitary condition of public buildings moderately good.

Ashe—Dr. G. W. Calvard, Jefferson. Diphtheria (ten cases) and typhoid fever (one case), and some pneumonia, reported. Sanitary condition of county is good, and weather favorable. Public buildings in good condition.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. W. A. Dunston, Windsor. No epidemic has prevailed, and sanitary condition of the county is good. Public buildings have recently been greatly improved.

Bladen—Dr. Newton Robinson, Elizabethtown. No contagious diseases reported, and county is in good sanitary condition. There has been cholera among hogs. Public buildings in good condition.

Brunswick—Dr. D. B. McNeill, Supply. No report.

Buncombe—Dr. H. B. Weaver, Asheville. General health of county and city remarkably good. Public buildings in excellent condition.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R.S. Young, Concord. Three cases typhoid fever reported. Condition of county and public buildings good. Statements are from my personal knowledge, as our physicians will not report.

Caldwell—Dr. R. L. Beall, Lenoir. There have occurred a few cases of pneumonia. Catarrhal affections common but mild. Mumps reported from one or two neighborhoods. There has been an epidemic of hog cholera

(so-called). No improvement in public buildings, and no prospect of any soon.

Camden—Dr. E. B. Ferebee, Belcross. No report.

Carteret—Dr. M. F. Arendell, Beaufort. General sanitary condition of county good. No contagious diseases or epidemics reported. Public buildings in fair condition.

Caswell—Dr. R. H. Williamson, Vanceville. Two cases of diphtheria reported. Malarial fevers have prevailed, and some pneumonia. County is in good sanitary condition, as also public buildings.

Catawba—Dr. J. M. McCorkle, Newton. No report.

Chatham—Dr. L. A. Hanks, Pittsboro. Pneumonia has prevailed to a limited extent. Six cases typhoid fever reported. Hog cholera has been epidemic. The health of county generally is good. Public buildings in good sanitary condition.

Cherokee—Dr. J. F. Abernathy, Murphy. Measles (five cases), whooping cough (six cases), and three or four light cases of pneumonia reported. A committee has been appointed by the county authorities to obtain designs for improved public buildings.

Chowan—Dr. R. W. Winborne, Barnitz. Sanitary condition of county is good; no contagious diseases have occurred. Jail and poor-house are cleanly kept; inmates are well supplied with fuel and clothing.

Cleveland—Dr. O. P. Gardner, Shelby. Typhoid fever prevailed in northern portions of county. With this exception, sanitary condition of county is very good: that of public buildings is good.

Clay—Has no board of health.

Columbus—Dr. I. Jackson, Whiteville. Sanitary condition of county has been good. Have had more typhoid fever this year than for several years, but could not be regarded as an epidemic. Catarrhal affections have prevailed, but respond readily to treatment. Hog cholera has been epidemic in some sections. Public buildings in good condition. County hospital will be finished in a few weeks.

Craven—Dr. Leinster Duffy, New Berne. Health of county has been good; only a few cases of pneumonia and malarial fever. Public buildings are kept in good condition.

Cumberland—Dr. J. A. Hodges, Fayetteville. Very little sickness reported in the county. Public buildings are in exceptionally good condition.

Currituck—Dr. F. W. Ritter, Moyock. No report.

Davidson—Dr. R. L. Payne, Jr., Lexington. No reports from county physicians. Varicella has prevailed in Lexington. Hog cholera has been epidemic. General sanitary condition of county good; condition of public buildings unchanged. There has been very marked improvement in the health of paupers at the poor-house since placed upon a varied diet, and this has been accomplished at less expense than when fed on bread and bacon alone.

Davie—No board of health.

Duplin—Dr. J. W. Blount, Kenansville. County in good condition. Very little sickness, except such as is caused by sudden changes of atmosphere. Poor-house is in good condition and but little sickness among the inmates.

Durham—Dr. N. M. Johnson, Durham. No epidemic of any kind has prevailed. Public buildings in good condition.

Edgecombe—Dr. J. M. Baker, Tarboro. No report.

Forsythe—Dr. D. N. Dalton, Winston. One or two cases of diphtheria and an epidemic of hog cholera have occurred. Sanitary condition of county good. Also that of public buildings.

Franklin—Dr. E. S. Foster, Louisburg. Typhoid fever has prevailed to a limited extent in some sections. Condition of county is very good, so far as I can learn. Jail has recently been repaired and a good system of sewerage introduced.

Gaston—Dr. E. B. Holland, Dallas. Malarial and typhoid fevers have prevailed in most sections. Public buildings in good sanitary condition.

Gates—No board of health.

Graham—No board of health.

Granville—Dr. J. M. Hays, Oxford. Sanitary condition of county is very good. Public buildings all in good condition.

Greene—Dr. W. C. Galloway, Snow Hill. General sanitary condition of county good. Public buildings in fair order.

Guilford—Dr. E. R. Michaux, Greensboro. Some few cases of typhoid and malarial fevers and some throat troubles are all to be reported from this county. Public buildings in good condition.

Halifax—No board of health.

Harnett—No board of health,

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. L. L. Johnson, Angeline. Sanitary condition of county good. There have been reported six cases pneumonia, one of typhoid fever and some whooping-cough, of a mild form, in different parts of the county. The contract for a new jail has been let. Poor-house is completed and in excellent condition.

Hertford—No board of health.

Hyde—Dr. Ed. Clark, Middletown. No report.

Iredell—Dr. M. W. Hill, Statesville. There has been but little sickness. The sanitary condition of county, with a few minor exceptions, is very good. There is no effort being made to improve the faulty construction of jail, so often alluded to.

Jackson—Dr. J. M. Candler, Dillsboro. There has been an epidemic of distemper among horses. Sanitary condition of county and public buildings very good.

Johnston—Dr. L. L. Sasser, Smithfield. Bronchitis has prevailed. Six cases of typhoid fever and a severe epidemic of hog cholera have occurred. Sanitary condition of county and public buildings very good.

Jones—Dr. Chas. B. Woodley, Trenton. No sickness at all reported. County and public buildings in good sanitary condition.

Lenoir—No board of health.

Lincoln—Dr. W. L. Crouse, Lincolnton.

Have never known the county to be in better sanitary condition. Physicians will not report. Inmates of jail and poor-house are all well.

Macon—Dr. J. M. Lyle, Franklin. Diphtheria (eight cases) and typhoid (four cases) reported; also some hog cholera. Public buildings in good condition.

Madison—Dr. J. K. Hardwicke, Marshall. County is in very good sanitary condition. About twenty cases of scarlatina have occurred. Public buildings in good condition.

Martin—Dr. W. H. Harrell, Williamston. No report.

McDowell—Dr. J. H. Gilkey, Marion. Typhoid fever, pneumonia and bronchitis have prevailed to a limited extent. Public buildings and county are in good sanitary condition.

Mecklenburg—No board of health.

Mitchell—Dr. W. P. Upton, Bakersville. The county has never been in a healthier condition at this season of year. There has been an epidemic of hog cholera. Sanitary condition of poor-house is good, but that of jail is not, and no efforts are being made to improve it.

Montgomery—Dr. W. A. Simmons, Troy. Dysentery and whooping-cough have prevailed throughout the county. With these exceptions, the county has been remarkably healthy. Not much improvement needed in public buildings.

Moore—Dr. Gilbert McLeod, Carthage. Sanitary condition of county good. A few cases of whooping-cough reported from eastern part of county. Condition of jail is good. Poor-house is not as comfortable as it should be. No effort at improvement, as yet.

Nash—Dr. G. W. Lewis, Spring Hope. Health of county pretty good. Some typhoid fever reported. Hog cholera has been epidemic.

New Hanover—Dr. F. W. Potter, Wilmington. There has been but little sickness in city or county the past month. Diphtheria (three cases), typhoid fever (three cases) and hemorrhagic malarial fever (two cases) have occurred. Find it impossible to make negroes follow sanitary rules, hence their large death rate. Have

been trying to get the authorities to furnish a furnace outside of the city for the destruction of garbage. Public buildings remain in same condition.

Northampton—Dr. H. W. Lewis, Jackson. Very little sickness has been reported, and that of a mild character. Hog cholera has been epidemic.

Onslow—Dr. J. L. Nicholson, Richlands. No report.

Orange—Dr. D. C. Parris, Hillsboro. Sanitary condition of county was never better. Very little sickness of any kind. One case diphtheria and one of pernicious malarial fever have occurred; also malaria, meningitis, erysipelas, carbuncle, pneumonia, bronchitis, influenza and eczema. So far as I can learn, there have been ten deaths in the county, four of these occurring in town. Would say, just here, that much difficulty is met in gathering statistics from the brother M. D.'s in the county, only one reporting for this month. Doubtless many diseases and deaths occur of which I have no knowledge. Public buildings, except jail, are in good condition.

Pamlico—No board of health.

Pasquotank—No board of health.

Pender—Dr. S. S. Satchwell, Burgaw. Diphtheria (six cases), typhoid fever (five cases), pernicious malarial fever (two cases) and hemorrhagic malarial fever (one case) have occurred. A few scattering cases of hog cholera have occurred. Sanitary condition of public buildings is good. Malarial fever of a mild type has prevailed in some localities, and two cases of fatal congestive chill have been treated. Outside of this, the county has never enjoyed such general exemption from sickness.

Perquimans—No board of health.

Person—No report received.

Pitt—No board of health.

Polk—No board of health.

Randolph—Dr. J. W. Long, Randleman. Typhoid fever has prevailed to a limited extent. The general health of our people is good. The diphtheria (?) epidemic along the

river seems to have subsided. The condition of public buildings is fairly good; some improvements having been made at the jail. The condition of the rooms at the poor-house is decidedly the best I have ever seen.

Richmond—Dr. P. W. Stancill, Rockingham. Health of county is good—very little sickness reported. Three cases of typhoid fever have occurred. Hog cholera has been epidemic in some sections. Public buildings in good condition, except room for lunatics at poor-house.

Robeson—Dr. R. F. Lewis, Lumberton. County and public buildings are in fair sanitary condition. Improvements to public buildings have been suggested.

Rockingham—Dr. T. E. Balsley, Reidsville. No report.

Rowan—Dr. J. J. Summerell, Salisbury. A few cases of scarlatina, whooping-cough, dysentery, varicella, pneumonia and typhoid fever have occurred. Hog cholera has been epidemic in some parts of the county. Public buildings in good condition.

Rutherford—Dr. E. B. Harris, Rutherfordton. The health of the county is splendid. Nothing of a dangerous nature to report. Public buildings are comfortable, and inmates in good condition.

Sampson—Dr. J. A. Stevens, Clinton. A few cases of typhoid and many of malarial fevers have occurred; also some pneumonia. Mumps and measles very prevalent. Three cases of diphtheria in one family. Public buildings in fairly good condition.

Stanly—Dr. R. Anderson, Albemarle. No report.

Surry—No board of health.

Stokes—No board of health.

Swain—Dr. R. L. Davis, Bryson City. Sanitary condition of county is the best it has been for some time; no sickness of any consequence. Measles and whooping-cough reported. Hog cholera has been epidemic. Public buildings are not in good sanitary con-

dition, and no efforts are being made to improve them.

Transylvania—Dr. D. H. Farmer, Brevard. Health of county is excellent; no sickness of any kind, except a few cases of ordinary catarrhal affections, which yield kindly to treatment. Public buildings in good condition.

Tyrrell—Dr. Ab. Alexander, Columbia. Diphtheria (two cases) and typhoid fever (one case) reported. Sanitary condition of county good—very little sickness.

Union—Dr. W. C. Ramsay, Monroe. County in good sanitary condition, no diseases prevailing. Condition of jail still bad.

Vance—Dr. A. Cheatham, Henderson. County is in better sanitary condition than for years. Condition of public buildings is good.

Wake—Dr. James McKee, Raleigh. Sanitary condition of city and county remarkably good. Three cases of diphtheria reported. Public buildings all in good condition.

Warren—Dr. P. J. Macon, Warrenton. Condition of county good. Sporadic diseases only have prevailed. Public buildings in excellent condition.

Washington—Dr. W. H. Ward, Plymouth. No report.

Watauga—Dr. W. B. Councill, Boone. No report.

Wayne—Dr. James Spicer, Goldsboro. Sanitary condition of county good. Measles (three cases), whooping-cough (six cases) and scarlatina (one case) have been reported. Condition of public buildings as good as could be desired.

Wilkes—No report received.

Wilson—Dr. N. Anderson, Wilson. Public buildings in good condition.

Yadkin—Dr. T. R. Harding, Yadkinville. Sanitary condition of county is good. Diphtheria and typhoid fever have occurred.

Yancey—Dr. J. L. Ray, Burnsville. County in excellent sanitary condition. Condition of public buildings is moderate. Hog cholera has been epidemic.

Condition of Jails and Poor-houses by Counties for November, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubicfeet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubicfeet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	2	1,000	0	0	36a	500	?	?
Alexander.....								
Ashe.....	0				8	645	1	1
Alleghany.....	3	800	0	2	2	?	0	0
Anson.....								
Beaufort.....								
Bertie.....	1	480	?	?	13	?	?	1
Bladen.....	2	?	?	?	6	?	?	?
Brunswick.....								
Buncombe.....	25	700	?	18	34	800	?	21
Burke.....								
Cabarrus.....	8	1,029	8	3	22	962	11	6
Caldwell.....	5	715	0	4	9	630	0	3
Camden.....								
Carteret.....	0				6			
Caswell.....	3	500	?	?	23	1,000	9	3
Catawba.....								
Chatham.....	3	2,000	1	2	20	1,500	10	10
Cherokee.....	5	1,642	1	5	1	2,304	0	0
Chowan.....	1	1,920	0	1	5	2,621	0	0
Clay.....								
Cleveland.....	5	684	?	1	25	997	?	5
Columbus.....	4	4,158	?	1	7	624	?	0
Craven.....	26	540	5	5	21	950	3	3
Cumberland.....	12	800	8	9	14	1,000	9	6
Currituck.....								
Dare.....								
Davidson.....	3	3,645	0	0	21	720	0	5
Davie.....								
Duplin.....					21	1,000	?	?
Durham.....	7	1,000	?	4	33b	1,000	?	7e
Edgecombe.....								
Forsyth.....	24	800	8	6	27	?	4	4

a. Includes 4 in house of correction. b. Includes 19 in house of correction. c. Includes 5 in house of correction.

Condition of Jails and Poor-houses by Counties for November, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin.....	4	1,250	?	?	19	612	?	1
Gaston.....	0	.....	.....	.....	15	2,244	1	3
Gates.....	.....	.....	.....	.....	.....	.....	.....	.....
Graham.....	.....	.....	.....	.....	.....	.....	.....	.....
Granville.....	20	1,250	?	?	21	857	?	?
Greene.....	2	500	0	0	12	1,000	6	2
Guilford.....	22	562	?	8	31	1,290	?	9
Halifax.....	.....	.....	.....	.....	.....	.....	.....	.....
Harnett.....	.....	.....	.....	.....	.....	.....	.....	.....
Haywood.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson.....	7	1,000	?	5	4	2,000	?	1
Hertford.....	.....	.....	.....	.....	.....	.....	.....	.....
Hyde.....	.....	.....	.....	.....	.....	.....	.....	.....
Iredell.....	12	955	?	?	19	583	?	?
Jackson.....	5	2,000	3	4	4	2,000	2	2
Johnston.....	4	4,000	2	1	21	800	10	7
Jones.....	1	5,000	?	?	5	1,120	?	?
Lenoir.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln.....	4	1,928	?	0	31	340	8	5
McDowell.....	8	650	2	2	9	550	1	1
Macon.....	3	1,230	2	0	.....	.....	.....	.....
Madison.....	5	593	0	0	6	2,100	0	0
Martin.....	.....	.....	.....	.....	.....	.....	.....	.....
Mecklenburg.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitchell.....	.5	?	4	2	9	?	5	3
Montgomery.....	1	480	?	?	14	?	?	?
Moore.....	1	9,600	0	0	10	838	1	2
Nash.....	.....	.....	.....	.....	.....	.....	.....	.....
New Hanover.....	20	500	10	18	22a	600	13	7
Northampton.....	.....	.....	.....	.....	40	840	16	17
Onslow.....	.....	.....	.....	.....	.....	.....	.....	.....
Orange.....	5	512	0	1	33	2,048	15	6
Pamlico.....	.....	.....	.....	.....	.....	.....	.....	.....

a. Includes 2 in house of correction.

Condition of Jails and Poor-houses by Counties for November, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined,	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in,	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	0				5	?	3	3
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	5	1,344	1	4	27	564	7	10
Richmond.....	11	916	4	5	9	1,300	1	0
Robeson.....	13	532	0	0	8	800	0	0
Rockingham.....								
Rowan.....	12	600	1	7	17	2,000	3	2
Rutherford.....	9	760	2	?	26	997	?	?
Sampson.....	3	?	?	?	21	?	?	?
Stanly.....								
Stokes.....								
Surry.....								
Swain.....								
Transylvania.....	3	1,200	2	2	4	2,000	1	2
Tyrrell.....		1,000				1,000		
Union.....	3	2,000	?	2	28	2,100	?	3
Vance.....	7	1,456	5	4	12	1,946	0	1
Wake.....	21	1,288	?	?	125b	?	?	?
Warren.....	4	2,610	?	3	12	2,860	?	1
Washington.....								
Watauga.....								
Wayne.....	11	850	6	6	13	1,650	8	4
Wilkes.....								
Wilson.....	6	1,953	?	?	26	1,074	2	3
Yadkin.....	11	400	0	2	20	510	0	7
Yancey.....	2	1,152	0	1				

b. Includes 62 in house of correction.

Meteorological Report for November, 1889.

STATIONS.	TEMPERATURE.						NO. DAYS.											
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches)	Prevailing Wind.	
Chapel Hill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chat'oga, Tenn.	50.1	73.0	24	23.0	29	50.0	16.4	34.0	24	6.0	16	6	11	13	19	6.44	S. W.	
Charleston, S. C.	60.0	79.0	2	31.0	39	48.0	.....	25.0	.....	7.0	.....	18	6	6	6	7.28	W.
Charlotte.....	51.8	77.0	1	21.0	30	56.0	17.1	30.0	.....	6.0	.....	11	10	9	10	4.44	S. W.
Columbia, S. C.	56.1	80.0	1	23.5	30	56.5	.....	.....	.....	.....	.....	16	4	10	6	3.57	.. ..
Hatteras.....	58.0	74.0	13	35.0	30	9.0	.....	18.0	21	3.0	29	16	9	5	12	4.70	N. E.
Kitty Hawk.....	55.9	77.0	9	30.0	30	47.0	15.2	25.0	2	5.0	a	7	15	8	13	5.68	S. W.	
Knoxv'lle, Tenn.	48.0	74.0	1	21.0	29	53.0	.....	33.0	21	6.0	18	7	9	14	15	6.58	N. E.
Lynchburg, Va..	48.3	73.0	1	24.0	30	49.0	.....	41.0	24	6.0	17	9	9	12	15	4.86	N. E.
Norfolk, Va.....	53.4	78.0	13	27.0	30	51.0	15.0	28.0	24	4.0	16	10	10	10	11	2.55	S. W.	
Raleigh	52.7	80.0	13	24.0	30	56.0	17.4	34.0	7	4.0	26	11	8	11	11	3.07	S. W.	
Southport.....	56.8	75.1	1	25.7	30	49.4	.....	20.5	8	6.0	16	12	10	8	8	2.18	N. E.
Wake Forest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	57.0	78.0	1	27.0	30	51.0	.....	29.0	.....	5.0	.....	14	7	9	12	3.72	N. E.

BAROMETER.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn	30.156	30.559	30	29.540	21	1.019
Charleston, S. C.	30.141	30.528	30	29.641	21	.887
Charlotte, N. C	30.135	30.591	30	29.523	21	1.068
Columbia, S. C.	.....	.....	.....	.....	.....	.....
Hatteras, N. C	30.140	30.600	10	29.610	21	.990
Kitty Hawk, N. C.	.....	.....	.....	.....	.....	.....
Knoxville, Tenn	30.149	30.568	30	29.565	21	1.003
Lynchburg, Va	30.120	30.650	16	29.495	21	1.155
Norfolk, Va	30.121	30.663	16	29.506	21	1.157
Raleigh, N. C	30.124	30.594	16	29.518	21	1.076
Southport, N. C. ....	.....	.....	.....	.....	.....	.....
Wake Forest, N. C. ....	.....	.....	.....	.....	.....	.....
Wilmington, N. C	30.130	30.536	30	29.573	21	.961

(a) 5th and 12th.

Mortuary Report for November, 1889.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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JANUARY, 1890.

NO. 10.

Excerpts from the Transactions of the North Carolina Sanitary Association, 1889.

THE moral aspect of sanitation has been incidentally touched upon. If I point a loaded pistol at a fellow-man, and pull the trigger, I commit a murder. If I knowingly allow that man to be exposed to a disease which takes his life, am I innocent of his death? Human law may exonerate me, but how can I plead at the bar of God and my own conscience? The laws of life and health are plain and simple. They are the laws of God: we know them; happy are we if we do them. The time has come in modern civilization when ignorance and indifference cannot be pleaded in excuse for neglecting the enactment and enforcement of sanitary laws.

In ghastly mockery of the words of hope and resignation graven on the tombstones of our loved ones, who have succumbed to preventable diseases, we see, standing out in letters of fire, which should scorch and sear our con-

sciences: "Strangled by filth!" "Killed by wilful ignorance and neglect!"

The deaths from preventable diseases in this State are simply murders, and we are left to decide in how far each of us is answerable to the just Judge of all for the crime.

The ignorance and indifference, the fatal blunders of the past, cannot be remedied; we cannot recall the dead; but if to-day we mend our ways and heed the sanitary demands of the living, our loved and lost ones will not have suffered and died in vain—*Dr. H. T. Bahnson, in "The Public Water Supply of Towns and Cities in North Carolina."*

THE struggle against adulteration has been going on ever since man's greed overcame his honesty. Governments have striven to protect their subjects, but with indifferent success, down to this age, in which the introduction of scientific methods of inspection and testing has put it into their power to tell the good from the bad. Greece had her wine-inspectors, England her "ale-tasters" and "assizes of

bread." The crudity of general tests applied is well illustrated by the account given of the way in which the "ale-tasters" examined the liquors for an excess of sugar. Clothed in leather breeches they sat upon a wooden bench on which some of the liquid had been spilled. The relative difficulty experienced in rising gave them an indication of the amount of sugar.

The old-time laws did not fail for lack of punitory clauses—fines, imprisonment, sitting in the pillory with the loaves of false bread tied about the neck, or parading the streets with similar decorations, riding for a day enthroned in the city garbage-cart—everything, down to enforced consumption of the adulterated articles. This latter was sometimes equivalent to the death-penalty. At Biebrich-on-the-Rhine a dealer was forced to drink his own wine. He died from the effects. Very often the penalties were excessively severe, as burning and burying alive, in Germany. Yet, the ease with which they escaped detection and the profits of the business were too great a temptation. Adulteration flourished, and the governments were unable to suppress it. Modern legislation in England was largely brought about by the careful scientific work of the distinguished chemist Aceum. But the first Parliamentary commission and general legislation were due to the influence of the *Lancet* and its Sanitary Commission, under the leadership of Dr. Hassall. This Commission was appointed in 1855, and effective legislation in England on this subject date from that year.—*Prof. F. P. Venable, in "The Necessity of State Intervention to Prevent Adulteration of Food and Drugs."*

SEWAGE contains 75,000,000 germs to the quart when fresh, but when stagnant and putrefying would contain one hundred times that number. The bacteria of yellow fever is probably as prolific as any of the species, and from one centre will develop enough offspring to infect a city. So that the sooner we can get at

the source of danger and destroy it, so much the better.

Thus the sick and well should be at once separated—the sick for treatment, the well for observation—and both should be taken from the ship and placed in quarters provided by the State. Then, and only then, can the ship be thoroughly disinfected, and disease germs destroyed, so that her voyage can be safely completed—not only safely for herself, but safely for the public.

There must be some risk, for we have not arrived at perfection in anything, but the risk must be reduced to a minimum, especially for the public. We therefore set aside the principle of detention for any particular number of days, as too purely empirical for a profession which is striving to get a little nearer exactness than was thought to be possible in former times. A vessel coming at quarantine, therefore, should be treated purely upon its merits, and without regard to any other vessel. She should be carefully inspected, and all persons on board examined, and the truth of all papers verified, so far as they certify to the sanitary condition of the ship. If her record is satisfactory in all respects, the vessel should be allowed to proceed on her voyage without further detention. But, on the contrary, a record involving probable infection being discovered, or a certainty of it, from the presence of actual disease of an infectious nature on board, our responsibility becomes grave indeed, and we have to proceed with the utmost caution.—*Dr. W. G. Curtis, in "Maritime Quarantine."*

PERSONS from infected points passing through the town under quarantine, should, if in railroad cars, be locked in during the transit through the town, and no outside person should be allowed to have communication with them, or to handle their clothing, except such persons as are necessary for the railway service. Due notice should be served upon all persons that violation of this rule will sub-

ject them to isolation at the quarantine station, and passengers should be informed by the sanitary police, or by circulars distributed among them, that the same punishment will follow their leaving the coaches and attempting to reach the guarded town by other avenues.

The travel by water is more difficult of management, but the same supervision and care, altered to the changed circumstances, will serve in this case as well as in that of railway travel. Provision should be made looking to the disinfection of the coaches occupied in transit by these infected persons and their dangerous baggage. This is a matter easy of arrangement with the railroad authorities by intelligent and liberal health boards.

It will readily appear to those of you acquainted with the character of river travel, that there is constant need of the sharp eye of the sanitary officer. The quarters of the crew and the points about a steamboat where dirt of the worst kind will accumulate, the bilge, form excellent breeding places for a disease, if the germs are once introduced. For the time, at least, of the quarantine, they should be known to be clean and well aired, and the bilge should be very frequently discharged, and means adopted for cleansing and disinfecting all points reached by it.—*Dr. George G. Thomas, in "Inland Quarantine."*

Relations of Water in the Bodily Economy.

Dr. J. Harvey Dew read a short paper before the Medical Society of the County of New York, January 28, 1889, relating the importance of water from a physiological standpoint. He would deal with water as an element necessary to the exercise of certain functions and in the chemistry of animal life. Both laity and profession showed a sad neglect of certain facts about water, the results of which inattention he saw every day.

The chief of these facts were:

1. The body consisted mainly of water, the

latter forming in health from two-thirds to three-fourths of its bulk.

2. Water constituted nearly the total volume of the circulating fluids of the body, the blood, lymph, and digestive secretions.

3. It was the vehicle for the processes of digestion, absorption and transportation of food.

4. It formed a large part of the ultimate tissues, and must be present in every process of assimilation.

5. It serves as a vehicle for the circulation of waste matters.

6. Three or four pints (or pounds) of it were needed daily.

7. It could be observed that all thin persons partook scantily of water, whereas all fleshy people drank freely of it.

8. All diseases involved a disturbance of the process of digestion, absorption, secretion, and elimination.

9. A large portion of the discomforts and troubles of the body arose from a poor performance of the functions depending upon water. It was proper that in health two pints of water should leave the body daily by the kidneys, two by the skin, and one and a half by the lungs, or five and a half total. Water taken at meal-time was rapidly absorbed or passed through the pylorus. Lack of water caused constipation, made the secretions tenacious, the circulation defective, and the skin dry, and directly caused dyspepsia. The habit of taking water only in the form of such beverages as tea, coffee, and beer was not a good substitute for the drinking of pure water.—*New York Medical Journal.*

A Plea for Public Health in Villages.

When a fire breaks out in a village every person considers it a duty to give a general alarm, and, especially, prompt notice of it to the fire department; and all citizens co-operate for the speedy extinction of the fire. If this were not done the *property* in the village would

be quite generally endangered by the possible spread of the fire. Why is it that when a dangerous communicable disease breaks out, one which may spread and endanger quite generally the *lives* of persons in the village, there is, so frequently, no such general alarm and prompt notice to a well-organized department of the village government, and no general co-operation for the extinction of the disease? Is not a person's life of more consequence than his property? Is not the saving of the *lives* of their children of as much consequence to the inhabitants of the village as the saving of their *property*? If each person were forced to answer this question, relative to his own children, I believe that he would feel like a degraded, miserly wretch if he did not promptly sacrifice his property in defence of the life of his child. Yet, collectively, the citizens generally do not do for the protection of *life* what they do for the protection of *property*—they do not maintain a well-organized health department so generally as they do a well-organized fire department. I believe it is because they do not so generally know that lives may be saved by well-organized health departments, or because they do not know the value of human life to the community.—*Henry B. Baker, M. D., in Annals of Hygiene.*

At early dawn, when first from bed you rise,
Wash, in cold water, both your hands and eyes,
With comb and brush then cleanse your teeth
and hair,
And thus refreshed, your limbs outstretch with
care.
Such things restore the weary, o'ertasked
brain;
And to all parts ensure a wholesome gain.
Fresh from the bath, get warm. Rest after
food,
Or walk, as seems most suited to your mood.
But in whate'er engaged, or sport, orfeat,
Cool not too soon the body when in heat.

—*Regimen Sanitatis Salernitanum.*

Review of Diseases Reported by Counties for December, 1889.

Bronchitis—Buncombe, Cumberland, Guilford, McDowell, Orange, Sampson and Stanly.

Catarrhal Fever—Gaston, New Hanover, Union and Wilson.

Cerebro-Spinal Meningitis—Lincoln.

Diphtheria—Alleghany, Caldwell, Greene, Jackson, New Hanover, Rowan, Rutherford, Wayne and Yadkin.

Distemper—Alleghany, Moore, Sampson and Yadkin.

Hog Cholera—Alamance, Cabarrus, Caldwell, Chatham, Columbus, Davidson, Mitchell, Northampton, Robeson, Rowan and Sampson.

Influenza—Caldwell, Chatham, Davidson, Duplin, Greene, Guilford, Madison, Northampton and Orange.

Malarial Fever—Alamance, Jones, Lincoln and Wayne.

Malarial Fever, Pernicious—Martin.

Measles—Cherokee, Davidson, Randolph and Sampson.

Mumps—Duplin, Guilford and Sampson.

Pneumonia—Buncombe, Cabarrus, Caldwell, Chatham, Cherokee, Cumberland, Duplin, Gaston, Henderson, McDowell, Rowan, Sampson, Stanly, Warren, Wayne and Yancey.

Rheumatism—Lincoln, Vance and Warren.

Scarlatina—Alleghany, Lincoln and Wayne.

Typhoid Fever—Alleghany, Bladen, Caldwell, Cherokee, Cleveland, Columbus, Granville, Iredell, Johnston, Macon, Mitchell, Montgomery, Nash, New Hanover, Pender, Richmond, Robeson, Vance, Yadkin and Yancey.

Typho-malarial Fever—Bertie.

Varicella—Davidson.

Whooping-Cough—Cherokee, Duplin, Henderson, Montgomery, Sampson and Wilson.

*Summary of Mortuary Statistics from Towns
for December, 1889.*

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population	46,285	44,015	90,300
Aggregate deaths	37	82	119
Temporary annual death rate per 1,000	9.6	22.4	15.9
Deaths under 5 years	14	25	39
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	1	1	2
Malarial fever	0	3	3
Whooping-cough	1	0	1
Pneumonia	4	6	10
Consumption	4	20	24
Brain diseases	1	0	1
Heart diseases	2	6	8
Neurotic diseases	3	6	9
Diarrhoeal diseases	2	1	3
All other diseases	16	23	39
Accident and violence	1	3	4
Still-born	1	13	14
Total	36	82	118

Summary of Reports from County Superintendents of Health, for December, 1889.

Alamance—Dr. G. W. Long, Graham. A few cases of simple malarial fever, and one of a pernicious type, came to Haw River from the east. Hog cholera prevailed in the southern parts of county. Public buildings in good condition, except jail.

Alexander—Dr. McD. Little, Taylorsville. No report.

Alleghany—Dr. G. W. Doughton, Sparta. Scarlatina (ten cases) and diphtheria (fifteen cases) reported from several sections, and one case typhoid fever. Distemper among horses has been epidemic. Sanitary condition of county good; also of public buildings.

Anson—No Board of Health.

Ashe—No Board of Health.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunston, Windsor. No epidemic has prevailed among man or beasts. Sanitary condition of county is fairly good. Some few cases of typho-malarial fever have occurred in the extreme northern and eastern sections. They have proven manageable. Public buildings in good condition and cleanly kept.

Bladen—Dr. Newton Robinson, Elizabethtown. Sanitary condition of county very good. Two cases of typhoid fever reported. Public buildings in good condition.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. Sanitary condition of county very good. Some little pneumonia and bronchitis. Condition of public buildings is first-class in every respect. Only one or two deaths during the year in the poor-house, and none in the jail.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Pneumonia has prevailed in almost all parts of the county. There has been an epidemic of hog cholera. Sanitary condition of county good. The sewerage from the jail is very bad, but no sickness has resulted as yet. No efforts are being made to improve it.

Caldwell—Dr. R. L. Beall, Lenoir. Diphtheria (four cases) and typhoid fever (three cases) reported. More influenza, sore throat and pneumonia prevalent during December than in the four years previous. Hog cholera has been epidemic, but is subsiding. Sanitary condition of public buildings fair.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. Sanitary condition of county is very good, with no contagious diseases to report. The public buildings are old. We have no poor-house.

Caswell—Dr. R. H. Williamson, Yanceyville. There has been little or no sickness. County and public buildings in good sanitary condition.

Catawba—Dr. J. M. McCorkle, Newton. County is in good sanitary condition, with no contagious diseases reported. Public buildings also in good condition.

Chatham—Dr. L. A. Hanks, Pittsboro. Pneumonia has prevailed to a limited extent. Two or three sporadic cases of influenza have occurred. Hog cholera has been epidemic.

Cherokee—Dr. J. F. Abernathy, Murphy. A few cases of measles, whooping-cough and typhoid fever have occurred. Only one case of typhoid. Condition of county is good. Paupers have been removed to the old poor-house, which is a very inferior building.

Chowan—Dr. R. W. Winborne, Barnitz. Pneumonia and coryza have prevailed generally. The county, generally, and public buildings are in good condition.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. Typhoid fever has prevailed in the northeastern section. The general sanitary condition of county is good; also that of public buildings.

Columbus—Dr. Isaac Jackson, Whiteville. Typhoid fever has prevailed to a greater extent than usual—probably thirty or forty cases. Hog cholera has been epidemic. Public buildings in good sanitary condition.

Craven—Dr. Leinster Duffy, Newbern. Health of county is good—but very little sickness of any kind. Public buildings are kept in pretty fair condition.

Cumberland—Dr. J. A. Hodges, Fayetteville. Little sickness is reported by the physicians of the county. Three cases of pneumonia and several of bronchitis. Public buildings are all in good condition. Heating apparatus in jail has been renewed and improved.

Currituck—Dr. F. W. Ritter, Moyock. There is absolutely no sickness in this community. Public buildings in good repair.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. Varicella and measles have prevailed. A num-

ber of cases of influenza have occurred during the last few days. Hog cholera has been epidemic. Public buildings in fairly good condition.

Davie—No Board of Health.

Duplin—Dr. Jas. W. Blount, Kenansville. Whooping-cough and mumps have prevailed. Sanitary condition of county is good, though in some sections there is considerable influenza, cough and pneumonia. Public buildings also in good condition.

Durham—Dr. N. M. Johnson, Durham. December has been a very healthy month for Durham county. Public buildings in a healthful condition.

Edgecombe—Dr. J. M. Baker, Tarboro. No report as to contagious diseases or condition of public buildings. Sanitary condition of county good.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. The health of county was never better. No contagious diseases prevailed. Condition of public buildings is very good. Jail has recently undergone alterations. Perfect system of sewerage.

Gaston—Dr. E. B. Holland, Dallas. Pneumonia and catarrhal fever have prevailed generally. Hog cholera has been epidemic. Sanitary condition of county fair; that of public buildings good.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. General sanitary condition of county has been remarkably good the past month. One case typhoid fever reported. Jail is to be thoroughly renovated and cleansed at once on account of lice.

Greene—Dr. E. H. Sugg, Snow Hill. Influenza has prevailed. One case of diphtheria reported. Sanitary condition of county good. Public buildings are in fair condition.

Guildford—Dr. E. R. Michaux, Greensboro. General sanitary condition of county continues good. Have had a few cases of mumps and bronchitis; also three or four cases of influenza. No deaths yet. Public buildings in good condition.

Halifax—No Board of Health.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. L. L. Johnson, Angeline. Owing to the warm and damp weather, we are having much pneumonia (twenty cases reported). Whooping-cough of mild form still lingering in all parts of the county. Poor-house and jail in very good condition.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. Three cases of typhoid fever reported. The health of the county has been remarkably good. Sanitary condition of public buildings fairly good.

Jackson—Dr. J. M. Candler, Dillsboro. Condition of county better than for years. One case of diphtheria reported. Public buildings in good condition.

Johnston—Dr. L. L. Sasser, Smithfield. Four cases of typhoid fever reported. County and public buildings are in very good sanitary condition.

Jones—Dr. C. B. Woodley, Trenton. A few cases of malarial fever have occurred. County in good condition. Condition of public buildings very good.

Lenoir—No superintendent appointed to succeed Dr. F. M. Rountree, deceased.

Lincoln—Dr. W. L. Crouse, Lincolnton. One case scarlatina and one of cerebro-spinal meningitis have occurred; also a few cases of intermittent fever and rheumatism. Public buildings well kept. More room needed at poor-house.

Macon—Dr. J. M. Lyle, Franklin. County

is in good sanitary condition. Two cases of typhoid fever have occurred. Condition of public buildings is very good.

Madison—Dr. J. K. Hardwicke, Marshall. Health of county very good. A few cases of influenza occurred. Public buildings in good condition.

Martin—Dr. W. H. Harrell, Williamston. Four cases of pernicious malarial fever have occurred. Catarrh and coryza have prevailed very generally. Sanitary condition of county generally and public buildings is good.

McDowell—Dr. J. H. Gilkey, Marion. Bronchitis and pneumonia have prevailed in some portions. With these exceptions there has been but little sickness. Sanitary condition of county has been unusually good during December. Public buildings are in good condition.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. Health of county is good. Three cases of typhoid fever reported. Hog cholera has been epidemic. Jail is not in very good condition, and nothing is being done to improve it.

Montgomery—Dr. W. A. Simmons, Troy. Bowel and lung affections have prevailed in almost all sections. The health of the people is remarkably good for the time of year. Ten cases of whooping-cough and four of typhoid fever have been reported. Public buildings need no improvement.

Moore—Dr. Gilbert McLeod, Carthage. There have been few cases of distemper among horses. Sanitary condition of county is good; that of public buildings is fair.

Nash—Dr. G. W. Lewis, Spring Hope. Urticaria and typhoid fever have prevailed; otherwise the month of December was a healthy one. Sanitary condition of county good, also that of jail and poor-house.

New Hanover—Dr. F. W. Potter, Wilmington. The county is quite healthy, except a good many cases of catarrhal fever. Two cases of diphtheria and nine of typhoid fever

reported. Jail in good condition. Nothing in the way of repairs done at poor-house.

Northampton—Dr. H. W. Lewis, Jackson. Influenza has prevailed in all portions of the county. Hog cholera has been epidemic. Sanitary condition of county good.

Onslow—Dr. J. L. Nicholson, Richlands.—No report.

Orange—Dr. D. C. Parris, Hillsboro. No special diseases have prevailed. Sanitary condition of county was never better. Bronchitis and influenza have prevailed moderately. Sanitary condition of poor-house and all other public buildings, except jail, is good. That of jail is not very good and no efforts are being made to improve it. The condition of our county poor-house has been improved in many ways during the past year. The sanitary condition has been improved in the way of drainage and numerous improvements on building. The food supply is a hundred per cent. better, by being more abundant, superior in quality and varied. The milk and vegetable supply is quite sufficient. Also, the general health of inmates was never better, there being scarcely any sickness during the month. Sanitary condition of jail would be good if there could be arranged a perfect system for disposal of human excrement.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. Sanitary condition of county is fairly good. Four cases typhoid fever reported.

Perquimans—No Board of Health.

Person—Dr. J. F. Fuller, Roxboro. No report.

Pitt—Dr. F. W. Brown, Greenville. No report.

Polk—No Board of Health.

Randolph—Dr. J. W. Long, Randleman. A limited epidemic of measles has prevailed at Central Falls, one of our manufacturing towns on the river. With this excep-

tion there is very little sickness in the county. Sanitary condition of poor-house is the best I have ever seen it. Bed-bugs are a thing of the past, and there is great improvement in the rooms. However, some are too crowded; often as many as five inmates being in a room eighteen feet square. Jail is only in a fair condition. What can best done with the slops (excreta, etc.) from the cells? The buckets we use keep the cells smelling badly, although the buckets are changed every day. We would like some suggestions. Again, our prisoners are required to sleep on the floor. Is this good policy from a sanitary point of view? What is the plan of bedding prisoners in well-regulated jails? I find the water used for wash purposes by the prisoners is thrown out of a window onto a shed, thence onto the ground, forming an ugly mud-hole, dignified by the name of ditch. I brought before the county commissioners the subject of increasing our room at the poor-house by the erection of another small building, and they are disposed to favor the suggestion. [The difficulty in the disposal of excreta in the jail has been noticed in another report this month. If sufficient buckets are furnished to permit of their being changed twice daily, and allowing a bucket for each one or two prisoners, and if, when placed in the cells, these buckets contained a small quantity of lime and dry earth, and had close-fitting lids, there would be less trouble from the odor. A still further improvement would be to have the buckets not in use *thoroughly* cleansed and *sunned*, and have connected with each cell an air-shaft in which the buckets should be kept while not in immediate use. The jail in Wilmington is supplied with these. In regard to bedding the prisoners, it can be cheaply and comfortably done by means of canvass hammocks, as in the jail in this county; or any gas-fitter could rig a frame of gas pipes, in which a piece of canvass could be stretched by means of a rope passing alternately through eyelets in the edge of the canvass and over the pipes.]

Richmond—Dr. P. W. Stansill, Rockingham. Two cases of typhoid fever reported. Very little sickness of any kind during December. Sanitary condition of public buildings is very good, except cells for the confinement of lunatics at the poor-house.

Robeson—Dr. R. F. Lewis, Lumberton. Typhoid fever has occurred. Hog cholera has been epidemic. General health of county is excellent. Public buildings in only fair condition. Improvements suggested.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. Health of county has been very good indeed. The cases of disease that have occurred have been mild. One case of diphtheria reported. Pneumonia has prevailed in some sections. Hog cholera reported as terrible from one section (Craven). Remarkably open weather—flowers and strawberries in bloom, and the grass as green as is usual in April. Public buildings in good condition.

Rutherford—Dr. E. B. Harris, Rutherfordton. Health of the county is the best ever known, and has been so for many months. Four cases of diphtheria reported. Public buildings are well kept and the inmates made comfortable.

Sampson—Dr. J. A. Stevens, Clinton. A few cases of pneumonia and bronchitis, and many of measles, mumps and whooping-cough. Cholera has been epidemic among hogs, and distemper among horses. Public buildings in good condition.

Stanly—Dr. R. Anderson, Albemarle. Bronchitis and pneumonia have prevailed in the Big Lick region. Some cases very severe. The jail is a hard old case and not worth repairing. We have a good poor-house. Most of the public school-houses are in good condition. Some are not, but efforts are being made to better them.

Stokes—No Board of Health.

Surry—No Board of Health.

Swain—Dr. R. L. Davis, Bay City. Sanitary condition of county is good. No sickness except colds. Public buildings in fairly good condition.

Transylvania—Dr. D. H. Farmer, Brevard. No report.

Tyrrell—Dr. Ab. Alexander, Columbia. No report.

Union—Dr. W. C. Ramsay, Monroe. General health of the county is good. Some mild cases of catarrhal fever in different sections. Condition of poor-house is good; that of jail still bad.

Vance—Dr. A. Cheatham, Henderson. Two cases of typhoid fever reported. Sanitary condition of county good. Some rheumatism, bad colds, etc. Condition of public buildings is not as good as heretofore, but will be attended to at once.

Wake—Dr. Jas. McKee, Raleigh. Sanitary condition of county remarkably good. Physicians will not report. Public buildings are in good condition. Court-house and jail require a better and more uniform system of heating. Public hall and city offices will be supplied with water-closets to connect with city sewers, which are nearly completed.

Warren—Dr. P. J. Macon, Warrenton. Pneumonia, rheumatism and colds. Sanitary condition of the county was never better. Public buildings in very good condition.

Washington—No Board of Health.

Watauga—Dr. W. B. Councill, Boone. Sanitary condition of county as good as could be in every way. I never knew it as healthy as it has been this winter.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. Pneumonia and malarial fevers have prevailed. Scarlatina (one case) and diphtheria (one case) reported. Have had little sickness during the past month, either in city or country. Poor-house is in good condition. Jail is also well kept, but will attempt to improve the ventilation.

Wilkes—No Board of Health.

Wilson—Dr. N. Anderson Wilson. General health of the county is good. Catarrhal affections of mild type are common. A few cases of whooping-cough have occurred in town. Public buildings are in good sanitary condition.

Yadkin—Dr. T. R. Harding, Yadkinville. Diphtheria and typhoid fever have prevailed in

certain sections. There has been an epidemic of distemper among horses. Sanitary condition of county good at present.

Yancey—Dr. J. L. Ray, Burnsville. Two cases of typhoid fever reported. Pneumonia has been raging considerably among children. Otherwise, the sanitary condition of county and public buildings is good.

Condition of Jails and Poor-houses by Counties for December, 1889.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number Inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	10	700	.....	.....	40a	500	.....	.....
Alexander.....								
Alleghany.....	3	.....	.....	.....	1	.....	.....	.....
Anson.....								
Ashe.....								
Beaufort.....								
Bertie.....	2	.....	.....	.....	14	.....	.....	.....
Bladen.....	2	.....	.....	.....	6	.....	.....	.....
Brunswick.....								
Buncombe.....	24	666	.....	16	30	660	.....	14
Burke.....								
Cabarrus.....	9	2,101	0	1	20	2,010	6	12
Caldwell.....	4	980	0	2	8	630	0	2
Camden.....								
Carteret.....	0	.....	.....	.....	6	.....	.....	.....
Caswell.....	24	350	.....	.....	4	1,000	9	3
Catawba.....	5	850	2	3	30	700	9	8
Chatham.....	2	1,900	1	1	20	1,450	10	10
Cherokee.....	6	1,366	2	5	2	1,152	.....	.....
Chowan.....	1	1,920	0	0	6	2,621	0	0
Clay.....								
Cleveland.....	5	684	.....	1	25	997	.....	5
Columbus.....	7	2,876	.....	0	7	624	.....	0
Craven.....	26	540	4	6	21	950	3	2
Cumberland.....	12	800	9	8	14	1,000	8	6
Currituck.....								
Dare.....								
Davidson.....	4	2,735	0	0	21	720	0	5
Davie.....								
Duplin.....					23	.....	.....	.....
Durham.....	7	1,600	.....	3	31b	1,000	.....	6c
Edgecombe.....	22	750	.....	4	31	2,554	.....	2
Forsyth.....								

a. Includes 3 in work-house. b. Includes 15 in work-house. c. Includes 4 in work-house.

Condition of Jails and Poor-houses by Counties for December, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin.....	6	5,000a	.....	.....	19	11,626a	.....	2
Gaston.....	0	.....	.....	.....	14	2,404	1	3
Gates.....	.....	.....	.....	.....	.....	.....	.....	.....
Graham.....	.....	.....	.....	.....	.....	.....	.....	.....
Granville.....	14	1,785	.....	.....	21	857	.....	.....
Greene.....	2	500	0	.....	11	1,000	4	1
Guilford.....	21	594	.....	12	30	1,333	.....	9
Halifax.....	.....	.....	.....	.....	.....	.....	.....	.....
Harnett.....	.....	.....	.....	.....	.....	.....	.....	.....
Haywood.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson.....	8	1,000	.....	5	4	1,500	.....	1
Hertford.....	.....	.....	.....	.....	.....	.....	.....	.....
Hyde.....	.....	.....	.....	.....	.....	.....	.....	.....
Iredell.....	16	701	.....	.....	22	504	.....	.....
Jackson.....	11	100	9	8	4	1,000	2	2
Johnston.....	10	3,500	6	5	21	900	6	0
Jones.....	1	5,520	0	0	5	1,120	0	0
Lenoir.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln.....	5	1,563	.....	.....	32	241	.....	.....
McDowell.....	8	600	2	5	9	550	1	1
Macon.....	3	743	1	1	.....	.....	.....	.....
Madison.....	5	593	0	0	6	2,100	0	0
Martin.....	9	500	1	4	15	400	0	5
Mecklenburg.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitchell.....	5	.....	4	.....	11	.....	8	.....
Montgomery.....	1	420	.....	.....	14	900	.....	1
Moore.....	2	4,800	0	0	10	838	1	2
Nash.....	4	.....	2	2	37	.....	12	8
New Hanover.....	8	500	5	4	19	600	12	7
Northampton.....	.....	.....	.....	.....	42	820	15	16
Onslow.....	.....	.....	.....	.....	.....	.....	.....	.....
Orange.....	5	512	0	1	32	2,048	14	5
Pamlico.....	.....	.....	.....	.....	.....	.....	.....	.....

a. Probably this is the total cubic space of the whole building.

Condition of Jails and Poor-houses by Counties for December, 1889. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of success- ful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of success- ful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	0	.....			5	.....		3
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	9	769	11	11	28	544	7	11
Richmond.....	7	1,439	3	4	7	1,300	1	0
Robeson.....	21	329	.....		9	800	.....
Rockingham.....								
Rowan.....	11	750	0	5	18	2,000	2	2
Rutherford.....	5	1,368	3	5	26	907	6	8
Sampson.....	2	.....			19	.....	
Stanly.....	1	2,000	0	1	15	.....	0	1
Stokes.....								
Surry.....								
Swain.....	0	.....			0	.....	
Transylvania.....								
Tyrrell.....								
Union.....	4	2,000	.....		29	2,100	.....
Vance.....	7	1,458	.....		11	2,123	.....
Wake.....	40	676	.....		126a	.....	
Warren.....	8	1,760	.....	4	15	2,430	.....	2
Washington.....								
Watauga.....	1	.....			7	.....	
Wayne.....	14	678	6	9	12	910	2	5
Wilkes.....								
Wilson.....	7	1,674	.....		27	971	2	2
Yadkin.....	10	500	.....	2	21	520	.....	7
Yancey.....	1	2,304	0	1				

a. Includes 62 in house of correction.

Meteorological Report for December, 1889.

STATIONS.	TEMPERATURE.										NO. DAYS.						
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
Chapel Hill.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chat'oga, Tenn.	57.2	73.0	19	25.0	1	48.0	19.2	35.0	13	9.0	11	10	13	8	7	0.44	S.
Charleston, S C.	60.0	78.0	11	37.0	1	41.0	.....	27.0	.....	3.0	.....	24	5	2	1	0.03	S. W.
Charlotte.....	54.7	76.0	26	27.0	1	49.0	19.4	30.0	.....	5.0	.....	18	7	6	3	0.48	S. W.
Columbia, S. C.	58.0	77.0	28	28.0	1	49.0	.....	33.0	.....	8.0	.....	14	12	5	2	0.75	S. W.
Hatteras	55.0	69.0	8	38.0	1	31.0	.....	18.0	8	6.0	21	21	7	3	3	0.26	S. W.
Kitty Hawk.....	54.0	71.0	26	32.0	1	39.0	15.9	24.5	30	8.2	16	9	18	4	3	0.30	N. E.
Knoxv'le, Tenn	54.0	72.0	26	22.0	1	50.0	.....	32.0	13	3.0	9	11	9	11	8	0.98	S. W.
Lynchburg, Va..	50.6	73.0	26	21.0	1	52.0	.....	38.0	2	3.0	10	12	10	9	8	0.51	N.
Norfolk, Va.....	51.5	74.0	26	28.0	1	46.0	17.7	28.0	2	5.0	a	13	9	9	4	0.77	S. W.
Raleigh	53.4	75.0	26	25.0	1	59.0	19.7	31.0	24	7.0	31	11	8	12	4	0.60	S. W.
Southport.....	54.6	70.3	19	32.0	1	38.3	.....	20.5	13	7.4	15	13	14	4	1	0.10	S. W.
Wake Forest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	56.0	76.0	28	30.0	1	46.0	.....	30.0	.....	5.0	.....	15	13	3	1	0.15	S. W.

BAROMETER.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C .....	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn	30.262	30.659	1	30.029	28	.630
Charleston, S. C	30.260	30.561	1	30.034	26	.527
Charlotte, N. C	30.243	30.666	31	29.974	26	.692
Columbia, S. C .....	.....	.....	.....	.....	.....	.....
Hatteras, N. C	30.240	30.610	1	29.820	26	.790
Kitty Hawk, N. C .....	.....	.....	.....	.....	.....	.....
Knoxville, Tenn	30.252	30.670	1	30.009	28	.661
Lynchburg, Va	30.212	30.761	31	29.775	26	.992
Norfolk, Va	30.216	30.701	31	29.760	26	.941
Raleigh, N. C	30.227	30.671	31	29.895	26	.776
Southport, N. C .....	.....	.....	.....	.....	.....	.....
Wake Forest, N. C .....	.....	.....	.....	.....	.....	.....
Wilmington, N. C	30.240	30.590	31	29.910	26	.680

(a) 4th and 15th.

Mortuary Report for December, 1889.

BULLETIN

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NO. 11.

Small-Pox.

The Secretary of the Illinois State Board of Health reports two cases of small-pox at Anna. Source of contagion thought to have been tramps. Also a case at East St. Louis; source of contagion not known. Every precaution has been taken by the local authorities to prevent its spread.

Typhus Fever in New York.

Three or four cases of typhus fever have been discovered in the North Brother's Island Hospital, of New York City. The infection is believed to have been imported on the steamship "Westernland" by means of the baggage of some German immigrants. An effort will be made to trace the course of each passenger, and their future medical history, until the period of typhus incubation shall have expired.—*Medical News.*

Open-air Jails.

Dr. John C. MacKown, of Capri, Italy, a collaborator of the *Annual of the Universal Medical Sciences in the Satellite* for November, 1889, furnishes an article with the above title. The article is of too great length for us to reproduce in toto, so we content ourselves with a few extracts:

"It is an axiom of society that it has a right to protect itself against criminals by taking forcible possession of their bodies and confining them in places where they can do society no harm. Imprisonment is a punishment and a means of reforming, for society takes forcible possession of the mind and morals of a prisoner while holding his body. * * * No modern State pretends to the right of torturing or giving a painful, lingering death to the murderer of a dozen victims under the most atrocious circumstances. It considers him a dangerous social outgrowth, and extirpates him as painlessly as possible. * * * *

There is a distinct and steady tendency toward the palliative remedy of imprisonment instead of the radical cure of death.

"As society perfects itself, it perfects its methods of catching and convicting criminals, so that prisoners are increasing every year. The important question arises, What is to be done with these prisoners? Governors of jails respond promptly. 'separate cells, and no intercourse between criminals, to prevent the older from contaminating the younger, to prevent a general meeting, and to insure a safer, better and more constant supervision of each prisoner by the turnkeys. Hard or constant labor by day, when possible, to keep the mind employed, and pay in part the expenses of capture, trial and prison; and chains and bolts for the refractory.'

"This is the technical answer of a man whose first duty is to hold on to the bodies of those confided to his custody and prevent any scandal in his jail. The prison chaplain's technical answer is: 'Religious teaching through sermons, prayers, private talks and tracts.'

"Prison physicians perform their technical duties of attending to the sick, etc.

"Political rulers wishing to present a prison budget which will not alarm tax-payers, try to keep down expenses, which increase yearly with the increasing number of criminals.

"Very much has been done for criminals since the month of May, 1610, when French humanity looked on with a feeling of satisfied justice at the murderer Ravaillac, while bits of flesh were pinched from all parts of his naked body with red-hot pincers, boiling oil was poured over him, his right hand was burned away in hot sulphur, and finally, he was torn to pieces by horses; or even since the beginning of this century, when English humanity saw with a just pleasure, the hat of a Roman Catholic Irish Priest filled with pitch, then placed on his head, to be plucked off suddenly and with force, carrying with it hair and scalp. But is there not something more to be done?

"Do not useless, mental and moral tortures replace in our part of the nineteenth century

the physical inflicted, formerly, with such liberality? Ought not modern consciences, which have become so tender toward physical suffering, be awakened toward any unnecessary mental and moral tortures?

"Such questions can be asked only in a society which thinks that prisoners are sufficiently punished when they obey the rules of their prison, and that these rules should look forward to the return of criminals to society if confined for a short time, and to a proper conservation of their bodies, minds and morals if imprisoned for life."

On a yachting trip in the Mediterranean, he visited several islands belonging to Italy, and on each of which are kept several hundred prisoners. He gives an account of their treatment. Criminals are locked up every night at sunset, are released at daybreak, and are locked up again from mid-day until 2 o'clock. During the night no prisoner is allowed to be absent under any circumstances, but at mid-day those who work on farms at a distance from the prison are allowed to remain out by special permission from the director. During these free hours these prisoners can go anywhere they please on the island, and can engage in any work offered them by the towns-people or farmers. Any infraction of the rules of ordinary life around them or of their prison is punished by seclusion in special cells. The government furnishes physicians and medicines, a summer and a winter suit of clothes to each prisoner every year, and allows each ten cents daily in money for his daily food and other necessities of life. Danger of escape is prevented by a squad of soldiers, one to every ten criminals, and a swift sailing felucca manned by marines.

Any comforts are obtained by working, and those having no trades find employment of various kinds from the inhabitants. On account of the cheapness of the labor, the islands are so highly cultivated as to resemble gardens.

As for the prisoners, the open-air makes them the healthiest of any criminals I have ever seen. There is no sign in their faces and

bodies of that prison blight which strikes every visitor to ordinary jails or penitentiaries. Fresh, open, country air, sea-bathing, and contact with honest men, women and children, among whom these criminals must live and behave themselves properly, remind them that they are not simply jail-birds, but that humanity or society allows them to hang on to its skirts without utterly casting them out.

The looks of these prisoners were so different from those of any I had ever seen before that the question forced itself on me whether any better moralizer and redeemer of criminals can be found than this fresh, open, country air and its concomitants. Cities recognize the moralizing effects of good air by furnishing parks, squares and broader streets to the poor and debased, from whom criminals are mostly recruited. Governments recognize it by founding flourishing colonies with their most unpromising material, instead of letting it rot mentally, morally and physically in the cheerless cells and workrooms of a close prison, and in British colonies to-day the sons and grandsons of the most depraved criminals are among the richest, best educated, and most influential citizens of the new country where their fathers and grandfathers found fresh, open, healthy air instead of the foul air of the city slums, where they were born and reared.

He contrasted the appearance of these prisoners with a scene he witnessed a day or two after, when some three hundred prisoners were being sent from the close prison of Gaeta to the island of Elba. He watched with sorrowing eyes the double line of convicts escorted along the quay by soldiers with muskets and fixed bayonets to where the steamer awaited them. The vacant-looking, savage, scared, or weary eyes, and the unhealthy skins stretched over the collapsed bodies, out of which all manliness was crushed, would have been a bitter sight to modern society with its tender conscience. Carriages filled with blind, lame and palsied criminals followed, and the question forced itself on me: 'What right has society,

by mental and moral tortures, to reduce human creatures, through close confinement inside cheerless prison walls, to such anæmic, idiotic and insane conditions ?'

The prison blight present on the faces, in the movements of their bodies, and on the silent, compressed lips, said emphatically that society had no such right.

There can be no earthly doubt that avatism causes criminals to beget children with a tendency to criminality, and it is the duty of society to change the physical, mental and moral surroundings of criminals, so as to renovate their physical, mental, and moral capacities and make them capable of begetting honest children. It will take time, patience, and earnest, honest endeavor to destroy the avatism gained by continued centuries of crime. What possible hope is there for a man born in the dirty, narrow streets of a city where he has breathed sewer-gas from infancy, and whose vitiated blood supplies a brain corrupted by such mental and moral surroundings as are provided by thieves, prostitutes and murderers, when after two year's close confinement under the physically kind care of jailor, chaplain and physician, he is turned loose to go back to his former surroundings because he knows of no other? Are his vitiated body, mind and morals never to be dragged out of the slums in cities into the open, fresh, healthy air of the country, where by a forced residence of two or twenty years he can learn practically that such a thing as healthy air exists, where he can earn an honest day's work, and where his scrofulous, syphilitic and rachitic body can throw off hereditary and acquired poisons and serve as a foundation for healthy minds and morals? Our criminals, weak physically, morally and mentally, born often in an ambient of filth and crime, at other times unbalanced by excesses or giving way to passions (which we all have and cannot control at all times), in some fatal moment, to be bitterly paid for by years of exclusion from outraged society, deserve an intelligent care which may reform some.

Review of Diseases Reported by Counties for January, 1890.

Bronchitis—Alleghany, Buncombe, Caldwell, Craven, Guilford, Iredell, Johnston, McDowell, Orange, Sampson and Wayne.

Chicken-pox—Alleghany.

Diphtheria—Alleghany, Macon, New Hanover, Pender, Richmond, Tyrrell and Yadkin.

Distemper in horses—Orange and Yadkin.

Dysentery—Cherokee, Warren and Wayne.

Erysipelas—Wayne.

Hog Cholera—Chatham, Columbus and Robeson.

Influenza or "La Grippe"—Alamance, Alleghany, Bertie, Buncombe, Caldwell, Carteret, Caswell, Catawba, Chatham, Cherokee, Chowan, Cleveland, Columbus, Craven, Cumberland, Davidson, Duplin, Durham, Franklin, Greene, Halifax, Johnston, Lincoln, Macon, Madison, McDowell, Montgomery, Moore, New Hanover, Orange, Pender, Randolph, Richmond, Rowan, Rutherford, Sampson, Swain, Tyrrell, Union, Vance, Wake, Warren, Wayne and Yancey.

Influenza in Dogs—Martin.

Malarial Fever—Chowan, Guilford, Pender and Wayne.

Measles—Davidson, Jackson, Randolph, Swain and Wayne.

Mumps—Alleghany, Duplin, Halifax and Sampson.

Pneumonia—Alleghany, Buncombe, Caldwell, Caswell, Catawba, Chowan, Craven, Halifax, Iredell, Lincoln, McDowell, Moore, New Hanover, Orange, Pender, Richmond, Sampson, Vance, Warren, Wayne and Yancey.

Rheumatism—Alleghany and Vance.

Scarlatina—Wayne.

Typhoid Fever—Alleghany, Caswell, Chatham, Chowan, Columbus, Johnston, Macon, Martin, Mitchell, Pender, Randolph, Richmond and Yadkin.

Varicella—Wayne.

Whooping-cough—Cherokee, Duplin, Mitchell and Randolph.

Summary of Mortuary Statistics from Towns for January, 1890.

	White.	Col'd.	Total.
Aggregate population--	53,300	49,600	102,900
Aggregate deaths -----	54	83	137
Temporary annual death rate per 1,000-----	12.2	20.1	16.0
Deaths under 5 years..	--	--	39
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever -----	0	1	1
Malarial fever -----	0	1	1
Whooping-cough-----	0	2	2
Pneumonia-----	13	17	30
Consumption -----	9	12	21
Brain diseases -----	3	1	4
Heart diseases-----	8	5	13
Neurotic diseases -----	3	3	6
Diarrhoeal diseases ...	1	1	2
All other diseases -----	13	31	44
Accident and violence..	2	2	4
Still-born -----	2	7	9
Total-----	54	83	137

Summary of Reports from County Superintendents of Health and Correspondents for January, 1890.

Alamance—Dr. G. W. Long. Graham. Influenza, or "la grippe," is prevailing to a considerable extent. No deaths yet. Sanitary condition of public buildings about as good as usual.

Alexander—Dr. McD. Little, Taylorsville. No report.

Alleghany—Dr. Geo. Doughton, Sparta. Influenza has been generally prevalent. Six cases of diphtheria and one of typhoid fever have been reported; also several cases of pneumonia and bronchitis, inflammatory rheumatism, mumps and chicken-pox. Sanitary condition of public buildings is good.

Anson—No Board of Health.

Ashe—No Board of Health.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunston, Windsor. Influenza has prevailed in a very mild form. Public buildings are in good condition.

Bladen—Dr. Newton Robinson, Elizabethtown. No contagious diseases reported. Sanitary condition of county and public buildings is good.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. "La grippe" has prevailed generally. There have been some deaths from pneumonia and bronchitis resulting from "la grippe." The epidemic is now abating. In other respects sanitary condition of county is good. That of public buildings is good in every detail.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. No report.

Caldwell—Dr. R. L. Beall, Lenoir. Influenza began about January 20th and soon became epidemic. No fatal cases. Very little bronchitis or pneumonia resulting from it. Outside "la grippe" there is very little sickness in the county. No improvement in public buildings. Sanitary condition passable.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead. General sanitary condition of county is very good. Have been troubled somewhat with "la grippe." Public buildings are old but in good order.

Caswell—Dr. R. H. Williamson, Yanceyville. One case of typhoid fever reported. "La grippe" has prevailed generally and has been complicated by pneumonia or typhoid symptoms. Condition of public buildings is good, that of jail being improved.

Catawba—Dr. J. M. McCorkle, Newton. "La grippe" and pneumonia have prevailed. General sanitary condition of county is good, also of public buildings.

Chatham—Dr. L. A. Hanks, Pittsboro. Five cases of typhoid fever reported. In-

fluenza has prevailed. Hog cholera has been epidemic. Some of the cases of influenza are very severe, attended with congestion of the liver and portal system, for which mercury seems to be a specific. Sanitary condition of public buildings is very good.

Cherokee—Dr. J. F. Abernathy, Murphy. Eight cases of whooping-cough reported. The general health of the county is fair. There is some dysentery and "la grippe." No other diseases of a malignant character. There is no effort just now to improve the condition of public buildings. The jail and school-houses are in a very fair condition—that is, they are sufficiently ventilated and comfortably warmed.

Chowan—Dr. R. W. Winborne, Barnitz. Two cases of typhoid fever reported. Influenza, pneumonia, coryza and malarial fevers have prevailed in all parts of the county. The sanitary condition of the county has been good generally. The public buildings are well kept, the inmates are in good health and well supplied with clothing and fuel.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. Influenza, in an aggravated form, has prevailed in all parts of the county. Several deaths have resulted. With this exception the health of the county has been good. Public buildings are in good condition.

Columbus—Dr. Isaac Jackson, Whiteville. Some typhoid fever has occurred. Influenza has prevailed generally and there has been an epidemic of hog-cholera. There have been but few, if any, deaths from influenza. The typhoid fever occurred about the first of the month, but, I think, has disappeared now. Sanitary condition of public buildings is good.

Craven—Dr. Leinster Duffy, Newbern. Catarrhal affections quite prevalent. Influenza reported from all sections of the county—some cases with bronchitis or pneumonia as a complication. Sanitary condition of county and public buildings good.

Cumberland—Dr. J. A. Hodges, Fayetteville.

Much sickness has prevailed during the month. Influenza has had its victims in every part of the county and the number of deaths among the old and enfeebled has been exceptionally large. Public buildings are in first-class condition and inmates well cared for.

Currituck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. “La grippe” and measles have prevailed very generally. Sanitary condition of the county is fairly good. “La grippe” has prevailed rather extensively. Many of these cases suffered with high fever, intense aching in back and limbs (aching especially marked in nape of neck), severe headache, vertigo and pain in the bowels, without any catarrhal symptoms at all. As a rule the cases have convalesced in a few days, but in several cases catarrhal pneumonia, characterized by hyperpyrexia, has resulted from slight imprudence. No deaths yet. Condition of public buildings unchanged.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. Mumps and whooping-cough have prevailed. We have a number of cases of “la grippe,” I suppose. It has more the appearance of dengue than influenza. Poor-house is in good sanitary condition.

Durham—Dr. N. M. Johnson, Durham. “La grippe” has prevailed. It is not fatal *per se* and has not yet apparently increased the death rate. Runs its course in from one and a half to four days, sometimes leaving a bronchial cough. Sanitary condition of public buildings is good except some slight defects in sewerage, which is being corrected.

Edgecombe—Dr. J. M. Baker, Tarboro. No report.

Forsythe—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. Sanitary condition of county is very good. There have been a few cases of influenza of mild type. Public buildings in good condition.

Gaston—Dr. E. B. Holland, Dallas. Health could not be better. There have been a few cases of influenza in some portions. Public buildings are in fair sanitary condition.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. No report.

Greene—Dr. E. H. Sugg, Snow Hill. “La grippe” has prevailed throughout the county. Sanitary condition of county is good, also of public buildings.

Guilford—Dr. E. R. Michaux, Greensboro. Health of the county has been fair for the past month. Have had a good deal of bronchitis and some malaria. Remarkably few deaths, though. Sanitary condition of public buildings good.

Halifax—Dr. O. B. Pierce, Weldon. Influenza and mumps have prevailed in Weldon and other portions of the county. A few cases of pneumonia reported. With these exceptions sanitary condition of county has been good. Public buildings are in good condition. Improvements at the poor-house are contemplated.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. Sanitary condition of county is good. A few cases of pneumonia and bronchitis and colds have been heard of. Public buildings in fair sanitary condition.

Jackson—Dr. J. M. Candler, Dillsboro. Four cases of measles reported. Health of county very good. Sanitary condition of public buildings very good.

Johnston—Dr. L. L. Sasser, Smithfield. Four cases of typhoid fever reported. Bronchial troubles have prevailed. “La grippe” struck our county about the 20th. Many cases have been reported, but no fatal ones. Public buildings in good sanitary condition.

Jones—Dr. C. B. Woodley, Trenton. So far as can be learned the county is in remark-

ably good sanitary condition. Condition of public buildings is good.

Lenoir.—No Board of Health.

Lincoln.—Dr. W. L. Ciouse, Lincolnton. Influenza has prevailed in all parts of the county. Some cases of pneumonia and many of bad colds. Our poor-house has not sufficient room. Some old buildings have been removed which adds to the appearance of the place and makes it more cleanly.

Macon.—Dr. J. M. Lyle, Franklin. Two cases of diphtheria and four of typhoid fever reported. "La grippe" has prevailed very generally. County in fairly good sanitary condition. That of public buildings is particularly good this month.

Madison.—Dr. J. K. Hardwicke, Marshall. There has been but little sickness except "la grippe," which began the last week in December and has continued to increase until at least one-fourth of the population have been afflicted with its various forms. There have been no fatal complications reported up to the present. Sanitary condition of public buildings good.

Martin.—Dr. W. H. Harrell, Williamston. Four cases of typhoid fever reported. Catarrhal fever has prevailed in several portions. There has been an epidemic of influenza among dogs that has caused quite a scare and caused the killing of a large number under the mistaken idea of its being rabies. Sanitary condition of public buildings good.

McDowell.—Dr. J. H. Gilkey, Marion. Pneumonia and bronchitis have prevailed to a small extent in some portions. Have had a few cases of influenza. With these exceptions the health of the county has been unusually good. Sanitary condition of public buildings good.

Mecklenburg.—No Board of Health.

Mitchell.—Dr. W. P. Upton, Bakersville. Seven cases of whooping-cough and five of typhoid fever have been reported. Sanitary condition of county is not so good as it has

been the two preceding months. Jail is a hard old case; poor-house is in good condition.

Montgomery.—Dr. W. A. Simmons, Troy. No sickness has occurred except a few cases of bad colds, sometimes called grippé, and a man who was shot in the neck by a companion who mistook him for a turkey. Neither of the two inmates of the jail complain of its being sickly.

Moore.—Dr. Gilbert McLeod, Carthage. Influenza has prevailed to some extent. Sanitary condition of county is good—one death from pneumonia. Sanitary condition of jail and poor house is fair.

Nash.—Dr. G. W. Lewis, Spring Hope. The month of January was remarkably healthy. No contagious disease reported. Jail and poor house are in good condition and do not need any improvement at present.

New Hanover.—Dr. F. W. Potter, Wilmington. One case of diphtheria reported. Catarrhal fever has prevailed in the city. With the exception of catarrhal fever (la grippe), the people of the county have not suffered more than usual. It appears that many horses in the city have suffered from bronchial and nasal irritation. There were quite a number of deaths from pneumonia among our colored citizens—consumption also takes off a good many. In my practice among the poor did not treat many cases of "la grippe." Have asked for a furnace for the cremation of garbage, and have stated to the authorities that there is much yet to be done before the city will be in a first-rate sanitary condition. Some repairs have been made at the poor-house and the sanitary condition is improved.

Northampton.—Dr. H. W. Lewis, Jackson. No report.

Onslow.—Dr. J. L. Nicholson, Richlands. Health of our people is first-class. Many are complaining of colds—other than this almost perfect health prevails. Had a case of cerebro-spinal meningitis in a young man from Davis' school in Lenoir county. Sanitary condition of jail continues good. That of poor-

house still unimproved; and it is unsuited and unfit for the purpose for which used.

Orange.—Dr. D. C. Parris, Hillsboro. Influenza has prevailed in nearly all parts of the county. A few cases of bronchitis and pneumonia and of "said to be" "la grippe," all in mild form, have occurred. Distemper in mild form has been present among horses. Sanitary condition of poor-house very good—that of jail not so good.

Pamlico.—No Board of Health.

Pasquotank.—No Board of Health.

Pender.—Dr. S. S. Satchwell, Burgaw. Four cases of diphtheria and five of typhoid fever reported. Influenza has been prevalent. The remarkably warm weather has been attended with the development of malaria. Most of the prevailing diseases show malarial signs—even influenza. Pneumonia has prevailed.

Perquimans.—No Board of Health.

Person.—No Superintendent appointed.

Pitt.—Dr. F. W. Brown, Greenville. No report.

Polk.—No Board of Health.

Randolph.—Dr. J. W. Long, Randleman. Outside of influenza, that has prevailed to some extent, we have had little sickness. At Worthville there have been a few cases of measles. Whooping-cough reported from New Hope township. The fevers in his section are generally catarrhal. One case of typhoid fever. Sanitary condition of poor-house is about as usual. Some of the rooms are a little crowded, but we are going to try to build some new rooms. That of jail is good, except for a slop-hole for waste water; and we are trying to remedy this.

Richmond.—Dr. P. W. Stancill, Rockingham. One case of diphtheria and typhoid fever reported. There have been a good many cases of influenza of a mild form, also of pneumonia. No other sickness. No deaths in town during January. Sanitary condition of public buildings good.

Robeson.—Dr. R. F. Lewis, Lumberton. No sickness save colds. County is in fair sanitary condition. Cholera has been epidemic among hogs. Public buildings in fair sanitary condition. Improvements suggested.

Rockingham.—Dr. T. E. Balsley, Reidsville. No report.

Rowan.—Dr. J. J. Summerell, Salisbury. Influenza has prevailed. There has been very little sickness. Sanitary condition of county and public buildings good. The influenza is of mild type—no complications yet—relieved by a few days in doors and mild remedies.

Rutherford.—Dr. E. B. Harris, Rutherfordton. Influenza in mild form has prevailed. With this one exception the sanitary condition of the county is fine. Public buildings are in splendid sanitary condition.

Sampson.—Dr. J. A. Stevens, Clinton. Mumps and influenza are epidemic. A few cases of pneumonia and bronchitis. Sanitary condition of public buildings good. *No report on cubic space, etc.*

Stanly.—No Board of Health.

Stokes.—No Board of Health.

Surry.—No Board of Health.

Swain.—Dr. R. L. Davis, Bryson City. Influenza has prevailed to some extent. Measles in southwestern portion of county, with these exceptions the sanitary condition of county is fairly good.

Transylvania.—Dr. D. H. Farmer, Brevard. No report.

Tyrrell.—Dr. Ab. Alexander, Columbia. One case of diphtheia reported. "La grippe" has been epidemic in this township. We have had one hundred and ten cases with no deaths. Sanitary condition of county is good, also of public buildings.

Union.—Dr. W. C. Ramsay, Monroe. Only "la grippe" has prevailed. One death reported. Sanitary condition of county good but for this. Sanitary condition of poor-house good; of jail inferior.

Vance.—Dr. A. Cheatham, Henderson. "La grippe" has prevailed extensively, but no fatal cases reported. Rheumatism and pneumonia have been the principal diseases. The jail has been thoroughly renovated and repaired, painted inside and a new floor of cement put in, and new bedding, etc., have been supplied. Two new houses, each with two large rooms, have been erected.

Wake.—Dr. Jas. McKee, Raleigh. Influenza has prevailed in all parts of the city and county. Sanitary condition of county remarkably good. Public buildings all in good sanitary condition.

Warren.—Dr. P. J. Macon, Warrenton. Influenza, pneumonia and dysentery have prevailed in all sections.

Washington.—No Board of Health.

Watauga.—Dr. W. B. Councill, Boone. No report.

Wayne.—Dr. W. H. Cobb, Jr., Goldsboro. Several cases of measles and two of scarlatina reported. A mild but extensive epidemic of "la grippe" has prevailed. One case of vari-

cella reported. Pneumonia and bronchitis have been very prevalent, both in city and some sections of the county. Quinsy, malarial fever, dysentery and erysipelas have occurred. Poor-house is in good condition and inmates well cared for. Prisoners in upper cells of jail were suffering from pediculosis, but we have succeeded in exterminating the parasites.

Wilkes.—No Board of Health.

Wilson.—Dr. N. Anderson, Wilson. No report.

Yadkin.—Dr. Q. R. Harding, Yadkinville, diphtheria and typhoid fever have prevailed to some extent. Distemper has been epidemic among horses and mules. Sanitary condition of county good, except in one section, where typhoid prevailed. There have been some efforts to improve the sanitary condition of the jail; poor-house is in fair condition.

Yancey.—Dr. J. L. Ray, Burnsville. Influenza has been epidemic, and is often complicated with pneumonia, causing some deaths. Sanitary condition of public buildings is moderately good at present.

Condition of Jails and Poor-houses by Counties for January, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Alamance.....	7	800	.....	.....	43a	500	.....	.....
Alexander.....	.....	.....	.....	.....	.....	.....	.....	.....
Alleghany.....	4	.....	.....	3	2	.....	.....	0
Anson.....	.....	.....	.....	.....	.....	.....	.....	.....
Ashe.....	.....	.....	.....	.....	.....	.....	.....	.....
Beaufort.....	.....	.....	.....	.....	.....	.....	.....	.....
Bertie.....	3	.....	0	0	14	.....	0	0
Bladen.....	.....	.....	.....	.....	.....	.....	.....	.....
Brunswick.....	.....	.....	.....	.....	.....	.....	.....	.....
Buncombe.....	25	700	.....	15	33	650	.....	20
Burke.....	.....	.....	.....	.....	.....	.....	.....	.....
Cabarrus.....	.....	.....	.....	.....	.....	.....	.....	.....
Caldwell.....	5	718	0	2	7	630	0	2
Camden.....	.....	.....	.....	.....	.....	.....	.....	.....
Carteret.....	0	.....	.....	.....	6	.....	.....	.....
Caswell.....	3	450	.....	.....	23	1,000	9	3
Catawba.....	3	2,100	2	2	31	680	10	9
Chatham.....	3	2,000	1	1	20	1,500	10	10
Cherokee.....	6	1,368	3	5	2	1,152	.....	.....
Chowan.....	1	1,920	0	0	6	2,600	0	0
Clay.....	.....	.....	.....	.....	.....	.....	.....	.....
Cleveland.....	.....	684	.....	6	25	997	.....	8
Columbus.....	3	5,000	.....	0	9	494	.....	0
Craven.....	16	760	5	4	21	950	3	0
Cumberland.....	8	800	6	.....	14	1,000	10	.....
Currituck.....	.....	.....	.....	.....	.....	.....	.....	.....
Dare.....	.....	.....	.....	.....	.....	.....	.....	.....
Davidson.....	4	2,735	0	0	21	721	0	5
Davie.....	.....	.....	.....	.....	.....	.....	.....	.....
Duplin.....	.....	.....	.....	.....	27	788	.....	.....
Durham.....	6	1,000	.....	4	37b	1,000	.....	8
Edgecombe.....	.....	.....	.....	.....	.....	.....	.....	.....
Forsyth.....	.....	.....	.....	.....	.....	.....	.....	.....

a. Includes 4 in house of correction. b. Includes 20 in house of correction.

Condition of Jails and Poor-houses by Counties for January, 1890. (CONTINUED.)

Condition of Jails and Poor-houses by Counties for January, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evide- ce of suc-cessful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evide- ce of suc-cessful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....					4		2	2
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	8	840	2	8	26	586	7	11
Richmond.....	5	1,931	1	3	6	1,000	1	1
Robeson.....	25	276	0	0	9	800	0	0
Rockingham.....								
Rowan.....	18	362	2	3	19	1,800	2	7
Rutherford.....	4	1,710	2	4	26	997	6	8
Sampson.....	0				19			
Stanly.....								
Stokes.....								
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....	0				2	1,100	0	0
Union.....	6	2,000		2	28	2,500		3
Vance.....	9	1,130	5	4	18	1,021	4	3
Wake.....	12	2,255			149a			
Warren.....	4	2,860			15	2,750		
Washington.....								
Watanga.....								
Wayne.....	10	980	4	7	11	992	2	4
Wilkes.....								
Wilson.....								
Yadkin.....	13	520		3	20			7
Yancey.....	2	1,152	0	2				

a. Includes 84 in house of correction.

Meteorological Report for January, 1890.

STATIONS.	TEMPERATURE.								NO. DAYS.								
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Precipitating wind.
Asheville.....	47.2	71.4	.....	15.8	.....	55.6	21.6	.....	.....	18	8	6	6	1.42	N. & N.W.		
Chat'oga, Tenn.	50.5	75.0	7	25.0	17	50.0	16.3	31.0	25	5.0	4	3	15	13	12	4.68	S.
Charleston, S. C.	59.0	78.0	8	36.0	17	42.0	.....	26.0	.....	6.0	.....	12	14	5	8	1.28	S. W.
Charlotte.....	50.8	77.0	7	25.0	17	52.0	17.5	28.0	24	5.0	4	10	9	12	7	0.94	S. W.
Columbia, S. C.	55.0	78.0	11	27.0	17	51.0	.....	28.0	.....	7.0	.....	5	15	11	11	1.07	N. E.
Hatteras	56.0	73.0	15	32.0	22	41.0	.....	23.0	25	4.0	4	14	11	2	11	1.29	S. W.
Kitty Hawk.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knoxv'lle, Tenn.	49.0	73.0	12	24.0	17	49.0	.....	27.0	31	4.0	29	5	14	12	12	4.26	S. W.
Lynchburg, Va..	47.2	77.0	12	23.0	23	54.0	.....	33.0	29	6.0	3	8	14	9	11	2.59	S.
Norfolk, Va.....	51.2	76.0	13	25.0	23	51.0	16.3	29.0	29	5.0	4	8	5	18	10	1.13	S. W.
Raleigh	51.6	76.0	a	23.0	23	55.0	17.9	33.0	29	7.0	3	7	12	12	10	0.83	S. W.
Southport.....	56.0	69.6	8	29.4	23	42.2	.....	27.0	28	6.0	13	10	13	8	8	0.89	N.
Wake Forest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	57.0	80.0	8	27.0	23	53.0	.....	31.0	.....	5.0	.....	6	15	10	10	1.59	N. E.

BAROMETER.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.....	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn	30.326	30.617	28	29.991	26	.626
Charleston, S. C	30.316	30.675	28	30.006	8	.669
Charlotte, N. C	30.312	30.713	28	29.969	27	.744
Columbia, S. C.....	.....	.....	.....	.....	.....	.....
Hatteras, N. C	30.310	30.731	28	29.810	8	.920
Kitty Hawk, N. C.....	.....	.....	.....	.....	.....	.....
Knoxville, Tenn	30.312	30.643	16	29.923	26	.720
Lynchburg, Va	30.278	30.705	28	29.844	27	.861
Norfolk, Va	30.217	30.675	28	29.720	8	.955
Raleigh, N. C	30.298	30.692	28	29.904	8	.788
Southport, N. C.....	.....	.....	.....	.....	.....	.....
Wake Forest, N. C .....	.....	.....	.....	.....	.....	.....
Wilmington, N. C	30.310	30.690	28	29.890	8	.800

(a) 11th and 12th.

Mortuary Report for January, 1890.

TOWNS AND REPORTERS.	Races,	Population.			Temporary Rate per 1,000.	By Towns Deaths under 5 yrs.	
		By Races	Total	By Races	Per 1,000.		
Asheville.....	White	7,000	10,000	3.4	6.0	1	
Dr. H. B. Weaver.....	Color'd	3,000		12.0		Typhoid Fever.	
Charlotte.....	White	7,000	13,000	12.0	15.7	Scarlet Fever.	
Dr. J. Scarr.....	Color'd	6,000		20.0		Malaria Fever.	
Durham.....	White	4,000	7,000	3.0	.0.3	Diphtheria.	
Dr. N. M. Johnson.....	Color'd	3,000		20.0		Whooping Cough.	
Fayetteville.....	White	2,800	5,000	25.7	26.4	Measles.	
Dr. J. A. Hodges.....	Color'd	2,200		27.3		Tuberculosis.	
Goldsboro.....	White	2,800	5,000	8.6	9.6	Consumption.	
J. E. Peterson, Mayor.....	Color'd	2,200		10.9		Brain Diseases.	
Henderson.....	White	1,785	3,500	.....	.....	Heart Diseases.	
Dr. A. Cheatham.....	Color'd	1,715		.....	.....	Neurotic Diseases.	
Newbern.....	White	3,500	10,000	20.6	18.0	Diarrhoeal Diseases.	
S. Fulcher, City Clrk.....	Color'd	6,500		16.5	1	All other Diseases.	
Oxford.....	White	1,600	3,300	7.5	21.2	.....
Dr. J. M. Hays.....	Color'd	1,700		35.3	1	Accid't & Violence.	
Raleigh.....	White	8,000	15,000	24.0	24.0	.....
Dr. Jas. McKee.....	Color'd	7,000		24.0	4	Suicide.	
Salisbury.....	White	2,800	4,200	0.0	8.6	Still-Born.	
Dr. J. J. Summerill.....	Color'd	1,400		25.7	1	By Races.	Total
Washington.....	White	2,400	4,000	.....	2	By Towns Deaths	
Dr. S. T. Nicholson.....	Color'd	1,600		.....	.....	.....
Wilmington.....	White	9,000	23,000	13.3	18.8	1	5
Dr. F. W. Potter.....	Color'd	14,000		22.3	1	2	3
Greensboro.....	White	4,000	6,000	6.0	4.0	3	10
Dr. R. W. Tate.....	Color'd	2,000		6.0	2	4	36
Three towns.....	White	2,450	4,680	0.0	2.5	5	8
Wilson.....	White	2,000	3,500	.....	.....	.....	.....
Dr. N. Anderson.....	Color'd	1,500		.....	.....	.....	.....
Weldon.....	White	800	1,400	15.0	17.0	1	1
Dr. A. B. Pierce.....	Color'd	600		20.0		0	2
Monroe.....	White	1,900	2,200	.....	.....	.....	0
Dr. W. C. Ramsey.....	Color'd	300		.....	.....	.....	0
Salem.....	White	3,000	3,500	.....	.....	.....	.....
S.W.Clinard,City Clrk.....	Color'd	500	
Plymouth.....	White
Dr. W. H. Ward.....	Color'd

BULLETIN

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NO. 12.

The Cess-pool.

The Legislature of New Hampshire made one step in sanitary progress when it repealed the law which, for several years, required a privy-vault, if in close proximity to dwellings, to be six feet deep! The same law-making body ought to have gone another step, and made it a fine to construct a cess-pool in the vicinity of dwellings, or within contaminating distance of any well from which water is used for domestic purposes.

The cess-pool is the most dangerous contrivance ever invented for the storage or disposal of sewage. It becomes in a short time a festering, decomposing, disgusting mass of filth, poisoning the air, the soil, and the water in its vicinity. It is an incomparable device to spread typhoid fever, distribute diphtheria, and carry other diseases to the family. The area of soil polluted by a cess-pool, through gradual soakage into the surrounding earth, is sometimes very great; in other instances, the fluid contents will follow underground water-

channels, or fissures in the formation rock, to a great distance. There is no method of sewage-disposal so liable to pollute wells in the vicinity—they have not unfrequently been contaminated when more than one hundred feet distant by leakage from cess-pools. If cess-pools must be resorted to, they should be built of brick or stone, and laid in the best Portland cement. They should be water-tight in order to overcome the objections stated. If there is any other way of disposing of drainage, the cess-pool should never be adopted. At its best, it is little less than a nuisance.—*The Sanitary Volunteer.*

Wilmington Sanitary Notes, from Special Report of Health Officer Jas. McGowan.

Enumerating privies, vaults, sinks, &c., from the river to Tenth street, east side, and from south side Hanover to north side Castle, making fourteen streets one way, eleven the other, including a number of alleys, there are 1,309 privies, 441 vaults, 183 water-closets, some of the

latter emptying into cess-pools. The territory represents an area of nearly a square mile.

The privies mentioned are places of deposit on the surface of the ground, sometimes with and sometimes without any exterior protection. There is no system of sewerage, but private sewers have been constructed over some of the natural "branches,"—half a dozen of which run obliquely from north-east to south-west into the east side of the river, and one from the Marine Hospital into a ditch which leads into an open canal, which finally empties into Burnt Mill Creek at Oakdale Cemetery on the east side. Soil saturation is evident in many localities, so that well-water in such neighborhoods is poisonous.

Mr. McGowan is convinced of the necessity of sewerage for the thickly-settled "downtown"; the closing of cess-pools and sinks, and the substitution of boxes—the contents to be destroyed with wood-ashes, as he is convinced it destroys excrement.

Are Baking Powders Injurious to Public Health?

The use of baking powders in the preparation of food, is one of the products of the nineteenth century. Previous to this time, history tells us that leaven was used whenever it was desired to render bread porous and light of texture. Exactly why or how baking powders came into such general use, is not clear. Doubtless their convenience for rapid cooking was one cause. Among other causes their extensive advertisement has doubtless been prominent. Advertisements are able to sell anything in vast quantities, irrespective of merit.

Among the substances used in baking powders are cream of tartar, alum, ammonia, phosphoric and tartaric acids, and bicarbonate of soda. In small doses, it cannot be said that any of these are harmful, but is it true that, as used in the preparation of food, they are harmless?

In considering this question, it must be remembered that chemical reactions occur so that the result is quite different from the original ingredients of the baking powder. Do these ultimate combinations affect the system injuriously? It may fairly be said that most of these substances are useless as they enter the stomach, while the process of aeration of bread can be gained by other means. Among those who have studied these baking powders, is Prof. J. W. Mallet, of the Massachusetts State Board of Health, 1889. The main points reached by his investigations are given thus:

"The greater part of the baking powders in the American market are made with alum, the acid phosphate of calcium, bicarbonate of sodium, and starch.

"As found in the retail trade, these give off very different proportions of carbonic acid gas, and therefore require to be used in different proportions with the same quantity of flour.

"There is generally an excess of the alkaline ingredient, but sometimes the acid is in excess.

"Moistened with water, these powders yield small quantities of aluminum and calcium in a soluble condition.

"When the phosphate of calcium is employed, most of the aluminum is left in the form of the phosphate.

"The temperature of the interior of bread does not exceed two hundred and twelve degrees F.

"At this temperature the water of combination is not disturbed. In doses not very greatly exceeding such quantities as may be derived from bread as commonly used, aluminum hydroxide and phosphate produce upon myself an inhibitory effect upon gastric digestion. This effect is probably due to the fact that a part of the aluminum unites with the acid of the gastric juice and is taken up in solution, while at the same time the remainder of the aluminum hydroxide or phosphate throws down

an insoluble substance constituting the peptic ferment.

"Partial precipitation in insoluble form may probably also be brought about by the presence of the aluminum compounds in question. Thus it may be fairly said that not only alum itself, but the residues which its use in baking powder leaves in bread, cannot be viewed as harmless, but must be ranked as objectionable, and should be avoided when the object is the production of wholesome bread."

Investigations by others have sometimes failed to support Professor Mallett's studies, so that the matter remains an open question, with the probability that the whole brood of baking powders, while convenient, afford the least healthful mode of aerating bread. As bread is the one article of constant and general consumption, it would seem most desirable that further studies should fairly and finally settle the moot questions, unbiased by the trade interests at stake.—*American Lancet.*

Review of Diseases Reported by Counties for February, 1890.

Bronchitis from Alleghany, Chowan, Jones, McDowell, Wayne.

Chicken Cholera from Johnston.

Diphtheria from New Hanover and Tyrrell.

Distemper from Alleghany and Macon.

Dysentery from Guilford, McDowell, Wayne.

Hog Cholera from Bladen and Davidson.

Influenza, or "La Grippe," from Alamance,

Alleghany, Bertie, Bladen, Brunswick, Buncombe, Cabarrus, Caldwell, Carteret, Caswell, Catawba, Chatham, Cherokee, Chowan, Cleveland, Columbus, Craven, Duplin, Durham, Edgecombe, Franklin, Gaston, Johnston, Macon, McDowell, Mitchell, Moore, New Hanover, Northampton, Onslow, Orange,

Pender, Richmond, Robeson, Rowan, Rutherford, Swain, Union, Vance, Wake, Warren, Watauga, Wayne, Yadkin, Yancey.

Malarial Fever from Guilford and Pender.

Malarial Fever, pernicious, from Watauga.

Measles from Alleghany, Cherokee, Jackson, Randolph, Swain, Union.

Pneumonia from Alleghany, Bladen, Brunswick, Chowan, Columbus, Gaston, Jones, McDowell, Onslow, Orange, Pender, Vance, Warren, Wayne, Yadkin.

Rheumatism from Alleghany, Vance, Warren, Wayne.

Typhoid Fever from Chatham, Chowan, Columbus, Granville, New Hanover, Yancey.

Whooping-cough from Bladen, Franklin, Mitchell.

Summary of Mortuary Statistics from Towns for February, 1890.

	White.	Col'd.	Total.
Aggregate population	52,100	51,000	103,100
Aggregate deaths	53	98	151
Temporary annual death rate per 1,000	12.2	23.0	17.5
Deaths under 5 years	--	--	38
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	0	1	1
Malarial fever	0	4	4
Diphtheria	3	0	3
Whooping-cough	0	1	1
Pneumonia	9	16	25
Consumption	5	13	18
Brain diseases	3	0	3
Heart diseases	7	9	16
Neurotic diseases	3	4	7
Diarrhoeal diseases	2	5	7
All other diseases	17	38	55
Still-born	3	7	10
Suicide	1	0	1
Total	53	98	151

Summary of Reports from County Superintendents of Health and Correspondents for February, 1890.

Alamance—Dr. George W. Long, Graham. Influenza has been epidemic but is abating rapidly. Public buildings, except jail, in good sanitary condition.

Alexander—No report received.

Alleghany—Dr. George Doughton, Sparta. Two cases of measles reported. "La grippe" has prevailed in all sections; several cases of pneumonia, bronchitis and inflammatory rheumatism to report—some fatal cases following "la grippe." Distemper has been epidemic among horses. Public buildings are in about as good sanitary condition as their construction will permit.

Anson—No Board of Health.

Ashe—No Board of Health.

Beaufort—No report received.

Bertie—Dr. H. V. Dunston, Windsor. "La grippe" has prevailed in all parts of the county. Sanitary condition of public buildings and county generally is good.

Bladen—Dr. Newton Robinson, Elizabethtown. A few cases of pneumonia, whooping-cough and "la grippe" have been reported. Hog cholera has been reported from some sections. Sanitary condition of public buildings and county is good.

Brunswick—Dr. D. B. McNeill, Supply. Influenza has prevailed over the greater part of the county. There have been a few cases of pneumonia and consumption. Sanitary condition of public building is not very good. There will be an effort made to improve it soon.

Buncombe—Dr. H. B. Weaver, Asheville. "La grippe" prevailed in all sections, but has now disappeared. The mortality from the disease has been almost *nil*. Very little sickness in the county now. Public buildings are all in good sanitary condition.

Burke—No report received.

Cabarrus—Dr. K. S. Young, Concord. Influenza has been epidemic in all parts of the county. Sanitary condition of county and public buildings is good.

Caldwell—Dr. A. A. Kent, Lenoir. Influenza has been epidemic in all sections. Only a few deaths among the aged have resulted. The disease has about disappeared. Sanitary condition of jail and poor-house is rather bad, with no efforts being made to improve it. Whites and negroes sleeping in the same bed in jail and occupying the same room in the poor-house.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. Influenza, in a mild form, has prevailed throughout the county. Otherwise the general health of the county is good. Our public buildings are old, but clean and comfortable.

Caswell—Dr. R. H. Williamson, Yanceyville. Influenza has prevailed in all sections. Sanitary condition of county and public buildings good; that of jail has been much improved by the introduction of new heating apparatus.

Catawba—Dr. J. M. McCorkle, Newton. "La grippe" has prevailed in all sections. General sanitary condition of county and public buildings is good.

Chatham—Dr. L. A. Hanks, Pittsboro. Two cases of typhoid fever reported; influenza has prevailed—with this exception, there has been but little sickness. Sanitary condition of public buildings is very good.

Cherokee—Dr. J. F. Abernathy, Murphy. Measles (35 or 40 cases) reported. With the exception of measles and influenza there has been but little sickness in the county. Our jail has very poor sewerage. The other public buildings are in good sanitary condition.

Chowan—Dr. R. W. Winborne, Barnitz. One case of typhoid fever reported. Pneumonia, bronchitis and influenza have prevailed in all sections. More than an average amount of sickness in the county this month—rate of

mortality is small. Public buildings are kept clean, and the inmates well cared for.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. Influenza is now abating. Some improvements have been made to jail.

Columbus—Dr. Isaac Jackson, Whiteville. Three cases of typhoid fever have been reported. Influenza has prevailed extensively. Sanitary condition of county is not as good as usual. Much pneumonia has occurred as a result of exposure and neglect in persons suffering from influenza. Sanitary condition of public buildings is good. Our county hospital is finished and will compare favorably with any building of the kind in the State.

Craven—Dr. Leinster Duffy, Newbern. Influenza (now on the decline) has prevailed in all sections. Sanitary condition of county and public buildings good.

Cumberland—Dr. J. A. Hodges, Fayetteville. There has been a great deal of sickness in the county during February, attributable mostly to atmospheric changes, resulting in colds and malarial complications. Public buildings are in first-class sanitary condition. Cells of jail have recently been cleaned and whitewashed.

Currituck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. Rubeola and varicella have prevailed in several sections. Hog cholera has been epidemic in eastern portion. The general sanitary condition of county is good for the season.

Davie—No Board of Health.

Duplin—Dr. Jas. W. Blount, Kenansville. Sanitary condition of county is good. There is but little sickness and what there is seems to be a sequel of "la grippe," which has about run its course. Poor-house is in good sanitary condition.

Durham—Dr. N. M. Johnson, Durham. "La grippe" has been very prevalent, about

one-half the population having suffered from it; have not heard of one death attributable to it; it has about disappeared.

Edgecombe—Dr. J. M. Baker, Tarboro. "La grippe" has prevailed. Sanitary condition of county and public buildings good.

Forsyth—No report received.

Franklin—Dr. E. S. Foster, Louisburg. Two cases of whooping-cough have occurred. There have been a few cases of influenza, but it has not prevailed to any great extent. Sanitary condition of public buildings is good.

Gaston—Dr. E. B. Holland, Dallas. Influenza and pneumonia have prevailed in most portions. Public buildings are in good sanitary condition, and that of the county is fair.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. One case typhoid fever. "La grippe" has prevailed in all parts, and its consequent sickness is all we have. Public buildings in good sanitary condition.

Greene—Dr. E. H. Sugg, Snow Hill. "La grippe" has been epidemic. Public buildings and county in good sanitary condition.

Guilford—Dr. E. R. Michaux, Greensboro. The health of the county has been comparatively good—with, however, considerable bronchical and pulmonary troubles, and some dysentery and malarial fevers. Public buildings are in good sanitary condition.

Halifax—Dr. A. B. Pierce, Weldon. Sanitary condition of county is generally good. "La grippe" has been epidemic, as also influenza, among domestic animals, especially dogs.

Harnett—No Board of Health.

Haywood—No report received.

Henderson—No report received.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. Sanitary condition of county is quite good. Public buildings are not in good sanitary condition. Court-house is not properly ventilated, and the condition of jail has been often mentioned. No efforts are being made to improve their condition.

Jackson—Dr. J. M. Candler, Dillsboro. Measles have been epidemic. A few cases of "la grippe" have occurred. Sanitary condition of county and public buildings very good.

Johnston—Dr. L. L. Sasser, Smithfield. "La grippe" and pulmonary troubles have prevailed. Chicken cholera has been epidemic. Sanitary condition of county and public buildings good.

Jones—Dr. C. B. Woodley, Trenton. Acute bronchitis has been generally prevalent.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. "La grippe" has prevailed in all sections. A few cases have proved fatal. Have had some pneumonia. Poor-house is too small for the number of inmates. Otherwise public buildings are in good sanitary condition.

Macon—Dr. J. M. Lile, Franklin. Influenza has prevailed in all parts. Have had an epidemic of distemper among horses. Sanitary condition of county and public buildings is good.

Madison—No report received.

Martin—No Board of Health.

McDowell—Dr. J. H. Gilkey, Marion. Pneumonia, bronchitis and dysentery have prevailed. Have had much influenza. Public buildings and county generally are in good sanitary condition.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. "La grippe" and whooping-cough have prevailed; also some typhoid fever. County and public buildings, except jail, are in good sanitary condition.

Montgomery—No Board of Health.

Moore—Dr. Gilbert McLeod, Carthage. Influenza has prevailed considerably. One death reported. Sanitary condition of county is good. Jail and poor-house are to be put in good sanitary condition at once.

Nash—No Board of Health.

New Hanover—Dr. F. W. Potter, Wilmington. Diphtheria (5 cases) and typhoid fever (6 cases) have occurred. Influenza has been epidemic but is subsiding. There is no sickness in jail or poor-house, and the condition of the latter has been improved. The inmates are required to bathe once a week.

Northampton—Dr. H. W. Lewis, Jackson. Influenza has prevailed. Sanitary condition of county and public buildings is good. Improvements are still going on at poor-house.

Onslow—Dr. J. L. Nicholson, Richlands. With the exception of influenza, which has been epidemic, and a few cases of pneumonia, our people have enjoyed fine health. Jail is kept in cleanly condition and well ventilated.

Orange—Dr. D. C. Parris, Hillsboro. "La grippe," pneumonia, bronchitis and tonsilitis have prevailed. Various forms of neuralgia have been common. Jail is not in good sanitary condition and no efforts are being made to improve it. Other buildings are in good condition.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. Sanitary condition of county is not very good. The warm weather has developed malaria, even "la grippe" showing malarial complications. February has been more sickly than any month of the previous year. Pneumonia, especially of a malarial form, has prevailed, as have other lung troubles. Sanitary condition of public buildings is good.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—No report received.

Polk—No Board of Health.

Randolph—Dr. J. W. Long, Randleman. Measles of a very light form have prevailed. Very little sickness except colds. Sanitary condition of poor-house as good as its over-crowded state will admit. Still lament the absence of water-closets—the inmates having to go to the bushes. Am urging the importance of more room, but have as yet accomplished nothing. The jail would be vastly improved by providing some escape for the waste water from the cells.

Richmond—Dr. R. W. Stancill, Rockingham. There has been very little sickness of any kind, except influenza, which has been of mild form, causing no deaths. Sanitary condition of public buildings is good.

Robeson—Dr. R. F. Lewis, Lumberton. Influenza has prevailed. Sanitary condition of county and public buildings only fair. Improvements suggested.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. Influenza has prevailed quite generally, and some deaths have resulted from pneumonia following it. But little other sickness.

Rutherford—Dr. E. B. Harris, Rutherfordton. Influenza has prevailed. Sanitary condition of county is first-class. No sickness of a serious nature. Public buildings all in good order.

Sampson—No report received.

Stanly—No Board of Health.

Stokes—No Board of Health.

Surry—No Board of Health.

Swain—Dr. R. L. Davis, Bryson City. Sanitary condition of county is good. No sickness, except measles and influenza. A few deaths have occurred from a relapse of measles.

Transylvania—No report received.

Tyrrell—Dr. Ab. Alexander, Columbia. One case of diphtheria has occurred. Sanitary condition of county and public buildings is good.

Union—Dr. W. C. Ramsay, Monroe. Measles and "la grippe" have prevailed. Sanitary condition of county good. Poor-house is in good condition; jail bad—steps are being taken towards erecting a new jail.

Vance—Dr. A. Cheatham, Henderson. "La grippe" has been very prevalent; some cases of pneumonia and rheumatism. Sanitary condition of public buildings good.

Wake—Dr. James McKee, Raleigh. Influenza has been epidemic, but is abating. Public buildings all in good condition, and the authorities keep on the alert to better them when deemed necessary.

Warren—Dr. P. J. Macon, Warrenton. Influenza, pneumonia and rheumatism have prevailed. One case of typhoid fever has occurred.

Washington—No Board of Health.

Watauga—Dr. W. B. Councill, Boone. Four cases of pernicious malarial fever have occurred. "La grippe," in mild form, has prevailed. County and public buildings in good sanitary condition. New jail is finished and occupied, and is a model.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. "La grippe," pneumonia, and bronchitis have prevailed. Pleurisy, dysentery, tonsilitis, acute rheumatism, neuralgia, etc., have been reported. There has been much sickness the past month and several deaths. Public buildings in good sanitary condition, but I am striving for a neater state of affairs at the jail.

Wilkes—No Board of Health.

Wilson—No report received.

Yadkin—Dr. Q. R. Harding, Yadkinville. Influenza and pneumonia have prevailed. County is in good sanitary condition; that of jail is bad; poor-house fair. No efforts to improve them.

Yancey—Dr. J. L. Ray, Burnsville. Influenza has prevailed. Two cases of typhoid fever reported. The general sanitary condition of county is moderately good. Jail is not kept very clean, but I think will be improved soon.

Condition of Jails and Poor-houses by Counties for February, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	7	700	.....	.....	41a	500	.....	.....
Alexander.....	.....	.....	.....	.....	.....	.....	.....	.....
Alleghany.....	4	.....	.....	2	2	.....	.....	0
Ansou.....	.....	.....	.....	.....	.....	.....	.....	.....
Ashe.....	.....	.....	.....	.....	.....	.....	.....	.....
Beaufort.....	.....	.....	.....	.....	.....	.....	.....	.....
Bertie.....	4	b	.....	.....	14	b	.....	.....
Bladen.....	4	.....	.....	.....	6	.....	.....	.....
Brunswick.....	2	.....	.....	.....	10	.....	.....	.....
Buncombe.....	18	900	.....	14	30	800	.....	11
Burke.....	.....	.....	.....	.....	.....	.....	.....	.....
Cabarrus.....	8	1,305	1	1	20	9,012	6	10
Caldwell.....	4	958	0	2	6	.....	0	2
Camden.....	.....	.....	.....	.....	.....	.....	.....	.....
Carteret.....	0	.....	.....	.....	6	.....	.....	.....
Caswell.....	4	450	0	0	24	1,000	9	3
Catawba.....	4	1,100	1	1	29	750	9	8
Chatham.....	2	.....	1	1	20	.....	10	10
Cherokee.....	3	4,105	2	2	1	2,025	.....	.....
Chowan.....	2	960	0	0	7	2,246	0	0
Clay.....	.....	.....	.....	.....	.....	.....	.....	.....
Cleveland.....	12	681	.....	6	26	997	.....	10
Columbus.....	3	5,544	.....	1	9	486	.....	0
Craven.....	14	890	4	5	21	950	7	0
Cumberland.....	8	800	6	7	14	1,000	10	9
Currituck.....	.....	.....	.....	.....	.....	.....	.....	.....
Dare.....	.....	.....	.....	.....	.....	.....	.....	.....
Davldson.....	11	994	0	0	21	720	0	4
Davie.....	.....	.....	.....	.....	.....	.....	.....	.....
Duplin.....	.....	.....	.....	.....	26	800	.....	.....
Durham.....	25c	.....	.....	.....	16	.....	.....	.....
Edgecombe.....	8	2,073	0	3	34	2,329	0	2
Forsyth.....	.....	.....	.....	.....	.....	.....	.....	.....

a. Includes 5 in house of correction. b. Square dimensions given. c. Includes 19 at house of correction.

Condition of Jails and Poor-houses by Counties for February, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Franklin.....	4	.....	.....	2	17	.....	.....	2
Gaston.....	5	1,521	0	1	15	2,244	0	3
Gates.....	.....	.....	.....	.....	.....	.....	.....	.....
Graham.....	.....	.....	.....	.....	.....	.....	.....	.....
Granville.....	6	416	.....	.....	21	860	.....	.....
Greene.....	1	500	.....	.....	9	1,000	.....	1
Guilford.....	8	1,560	4	5	31	1,290	10	9
Halifax.....	9	.....	.....	.....	51	.....	.....	.....
Harnett.....	.....	.....	.....	.....	.....	.....	.....	.....
Haywood.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson.....	.....	.....	.....	.....	.....	.....	.....	.....
Hertford.....	.....	.....	.....	.....	.....	.....	.....	.....
Hyde.....	.....	.....	.....	.....	.....	.....	.....	.....
Iredell.....	18	623	.....	.....	18	638	.....	.....
Jackson.....	7	1,000	.....	.....	4	5,000	.....	.....
Johnston.....	2	2,000	0	1	18	900	3	3
Jones.....	.....	.....	.....	.....	5	1,120	.....	.....
Lenoir.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln.....	5	1,542	.....	.....	30	500	.....	.....
McDowell.....	4	650	1	1	8	600	2	1
Macon.....	4	1,200	1	2	.....	.....	.....	.....
Madison.....	.....	.....	.....	.....	.....	.....	.....	.....
Martin.....	.....	.....	.....	.....	.....	.....	.....	.....
Mecklenburg.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitchell.....	10	.....	.....	.....	.....	.....	.....	.....
Montgomery.....	.....	.....	.....	.....	.....	.....	.....	.....
Moore.....	6	1,600	0	0	11	752	1	2
Nash.....	.....	.....	.....	.....	.....	.....	.....	.....
New Hanover.....	9	500	.....	.....	17a	600	9	6
Northampton.....	.....	.....	.....	.....	42	800	15	12
Onslow.....	4	1,200	0	0	5	2,000	1	1
Orange.....	8	512	0	3	29	2,048	15	6
Pamlico.....	.....	.....	.....	.....	.....	.....	.....	.....

a. Includes one in house of correction.

Condition of Jails and Poor-houses by Counties for February, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	3		2	2	3		2	2
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	6	1,120	1	4	27	569	8	12
Richmond.....	6	1,618	1	2	8	1,200	1	2
Robeson.....	22	314			8	900		
Rockingham.....								
Rowan.....	11				20			
Rutherford.....	4	1,710		4	26	997	4	8
Sampson.....								
Stanly.....								
Stokes.....								
Surry.....								
Swain.....	1							
Transylvania.....								
Tyrrell.....	0	1,100			2	1,100		
Union.....	1	2,000		1	20	2,500		3
Vance.....	0				17	10,000	4	5
Wake.....	14	1,932			150a			
Warren.....	3	3,350			17	1,880		
Washington.....								
Watanga.....	2	b	0	0	7	b		
Wayne.....	4	2,205	1	2	15	834	3	5
Wilkes.....								
Wilson.....	*							
Yadkin.....	4	600	0	2	20		0	8
Yancey.....	1	2,304	0	1				

a. Includes 85 in house of correction. b. Square dimensions given.

Meteorological Report for February, 1890.

STATIONS.	TEMPERATURE.										NO. DAYS.			Prevailing wind.		
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).
Chapel Hill.....																
Chat'oga, Tenn.	54.0	78.0	26	27.0	9	51.0	19.1	36.0	23	6.0	7	6	10	12	12	7.85 S. W.
Charleston, S.C.	61.0	79.0	5	39.0	10	40.0	.....	23.0	....	6.0	.....	12	5	11	5	1.28 S. W.
Charlotte.....	52.8	79.0	25	28.0	10	51.0	17.5	30.0	24	3.0	7	12	7	9	11	3.65 S.
Columbia, S. C.	58.0	82.0	25	32.0	9	50.0	.....	27.0	.....	8.0	.....	5	12	11	6	1.58 N & S
Hatteras	56.0	73.0	28	39.0	22	34.0	.....	24.0	8	4.0	9	10	9	9	8	3.03 S. W.
Kitty Hawk.....	53.2	80.0	27	31.3	21	48.7	.....	28.5	20	8.0	8	6	13	9	10	3.14 N. E.
Knoxv'le, Tenn	52.0	76.0	24	26.0	19	50.0	.....	32.0	24	4.0	6	6	8	14	15	8.12 S. W.
Lynchburg, Va..	47.2	74.0	a	25.0	11	49.0	.....	35.0	3	5.0	27	8	9	11	13	4.22 S. W.
Norfolk, Va.....	52.4	79.0	25	30.0	9	49.0	17.5	33.0	.....	6.0	....	8	10	10	11	1.98 S. E.
Raleigh	52.7	80.0	25	29.0	10	51.0	17.6	33.0	24	6.0	2	4	9	15	13	2.80 N.
Southport.....	56.2	75.4	26	30.1	22	45.3	.....	25.6	3	5.7	20	6	13	9	9	1.76 S. W.
Wake Forest.....																
Wilmington	58.0	80.0	27	32.0	22	48.0	.....	32.0	....	11.0	.....	8	11	9	10	1.25 S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C						
Chattanooga, Tenn	30.146	30.505	21	29.808	27	.697
Charleston, S. C	30.156	30.379	16	29.867	8	.512
Charlotte, N. C	30.189	30.461	11	29.710	14	.751
Columbia, S. C .....	.				
Hatteras, N. C	30.150	30.426	16	29.770	14	.650
Kitty Hawk, N. C						
Knoxville, Tenn	30.135	30.478	21	29.764	14	.714
Lynchburg, Va						
Norfolk, Va	30.090	30.424	11	29.668	20	.756
Raleigh, N. C	30.136	30.453	10	29.728	14	.725
Southport, N. C						
Wake Forest, N. C						
Wilmington, N. C	30.150	30.410	16	29.860	14	.550

(a) 3d and 4th.

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Mortuary Report for February, 1890.

